National Park Service
U.S. Department of the Interior

Manassas National Battlefield Park
Manassas, Virginia

Cultural Landscape Report
Chinn Ridge

September 2018

Resource Stewardship and Science
Division of Cultural Resources, National Capital Region

Cultural Landscape Report

CHINN RIDGE

Manassas National Battlefield Park

Manassas, Virginia

September 2018

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Under contract with
Alpha Corporation

U.S. Department of the Interior • National Park Service • National Capital Region • Resource Stewardship and Science • Washington, DC

2018

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NPS Document Number *MANA 379 137861*

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Cover and Title Page Photo: View from Chinn Ridge to Henry Hill, 1949 (MANA Archives).

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Introduction

Chapter 1

Chapter title page: Northeast corner of Chinn house, ca. 1923 (MANA Archives).

Chapter 1: Introduction

The purpose of this Cultural Landscape Report (CLR) is to investigate, document, evaluate, and provide treatment guidance for the physical landscape associated with a portion of the Manassas National Battlefield Park. The study area is comprised of 752 acres associated with the Chinn Farm, the New York Monuments, and an area of woods southwest of the historic plantation (see Figure 1-1, Figure 1-2, and Figure 1-3). The study area is primarily significant for its association with two major engagements of the Civil War, the First Battle of Manassas on July 21, 1861 and the Second Battle of Manassas between August 28 and August 30, 1862.[1] During these battles, the cultural landscape was the site of heavy fighting, and Chinn Ridge provided a key vantage point for military tactical maneuvering.

This Cultural Landscape Report builds upon other planning efforts that address the Chinn Ridge landscape including the 2017 *Chinn Ridge Cultural Landscape Inventory*, the 2011 *Manassas National Battlefield Park General Management Plan*, and the 2013 *Fence Lines, Fields and Forests: Manassas National Battlefield Park Cultural Landscape Report*.[2]

The CLR is organized in two parts. Part 1 contains detailed documentation of the historical development of the study area landscape, evaluation of existing landscape condition, analysis of landscape integrity including identification of contributing features, and selection of an appropriate treatment approach based on the Secretary of the Interior's Standards for the Treatment of Historic Landscapes. Part 2 includes recommendations for the treatment and management of the historic landscape resources within the study area that are consistent with the landscape's significance, condition, and use.

STUDY BOUNDARIES

STUDY AREA

The Chinn Ridge cultural landscape is a former plantation located within the Manassas National Battlefield Park in Manassas, Virginia. It is situated approximately 25 miles west of Washington, DC, in Prince William County, Virginia, five miles north of the city of Manassas (see Figure 1-1).

The study area forms the southwest quadrant of the intersection of the Park at the Lee Highway (US Highway 29) and Sudley Road (VA 234), west of Manassas National Battlefield Park Visitor Center. The study area is bounded by Lee Highway to the north, Sudley Road to the east, and Groveton Road and a section of privately owned property to the west. The southern boundary of the study area is the park's southern boundary, abutted by Interstate 66 (I-66) and modern commercial development (Figure 1-2).

The 752-acre project area is located in the south central section of Manassas National Battlefield Park, and includes the approximately 600-acre property associated with the historic farm on Chinn Ridge, approximately 85 acres of woods to the southwest of the historic Chinn farm, and approximately 67 acres containing monuments to the 5th New York Infantry, 10th New York Infantry, and 14th Brooklyn Regiment (see Figure 1-3). The name "Chinn Ridge"derives from the Chinn family ownership of this plantation during the Civil War; before the war, this plantation was called Hazel Plain.

WEBSTER MONUMENT INHOLDING

The Colonel Fletcher Webster Monument is located on a one-acre tract on the crest of Chinn Ridge, approximately 600 yards northeast of the Chinn House remains. The property was purchased by Trustees of the Webster Monument Association from the Cather Family, and a marker to Colonel Fletcher Webster was dedicated on October 21, 1914. In 2012, a second monument was erected on the parcel honoring the Texas units who fought at the Second Battle of Manassas.

Ownership of this parcel has been unclear since the Trustees of the Webster Monument Association passed away. The National Park Trust is working to transfer ownership of this parcel to the National Park Service. While the ownership of the property is under review, the National Park Service continues to maintain the upkeep of the property, including mowing the grass and maintaining both monuments.

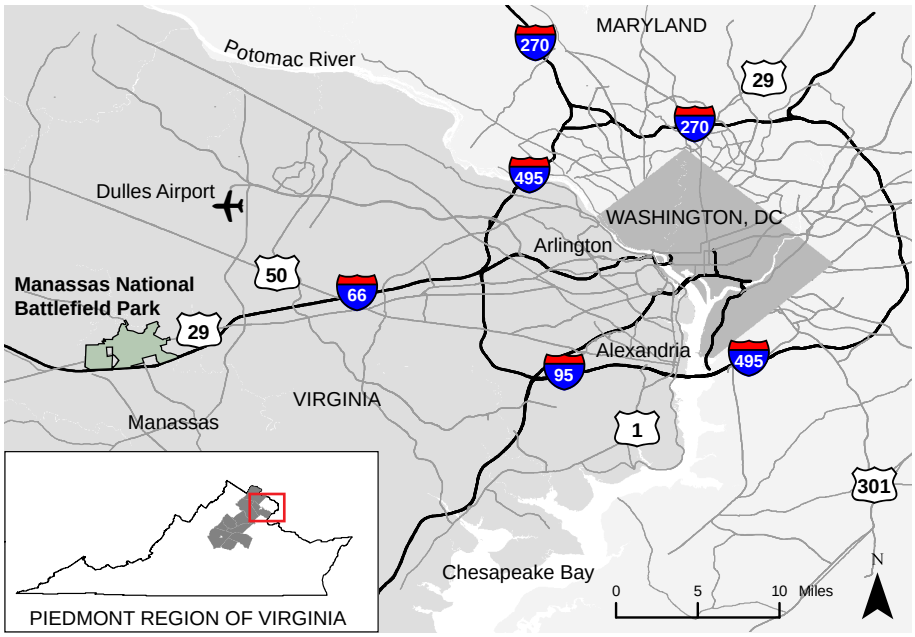

Figure 1-1. Regional location of Manassas National Battlefield Park.

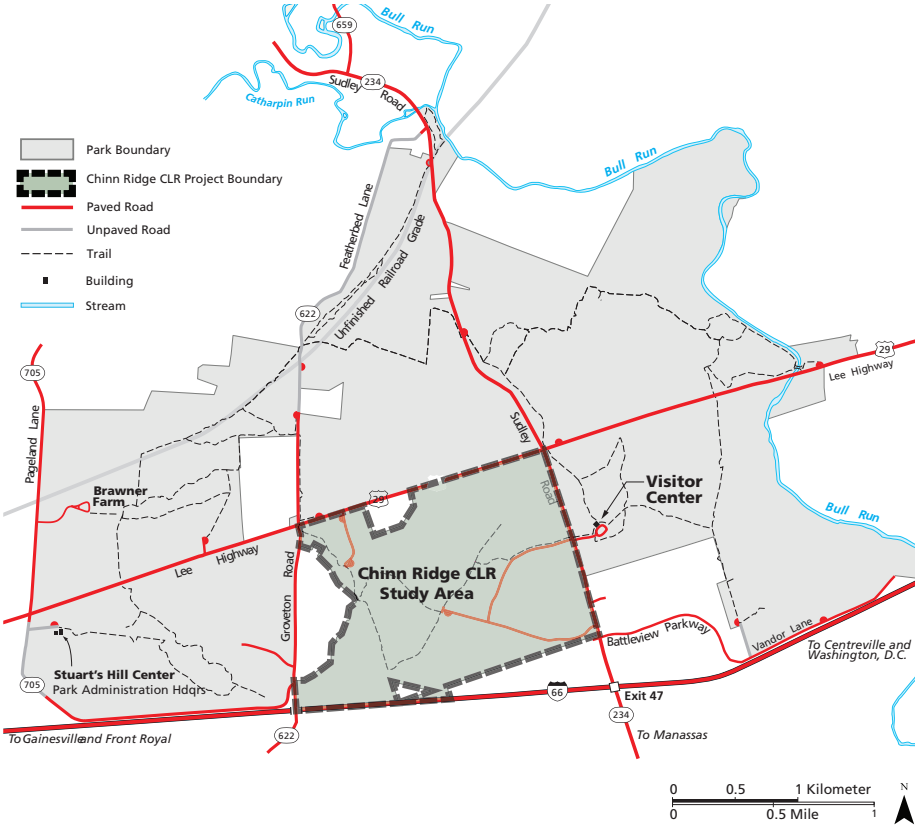

Figure 1-2. Location of study area within Manassas National Battlefield Park.

HISTORICAL CONTEXT

The Chinn Ridge cultural landscape is significant in three distinct areas of history. First, it is associated with 18th century Piedmont agricultural traditions. Second, it is significant as the battlefield for two major engagements during the US Civil War. Third, the landscape is important for commemorative features and activities between 1905 and 1940.

The landscape relates to traditional Piedmont agricultural practices of tobacco cultivation and diversified farming in northern Virginia during the 18th century. These early agricultural practices contributed to the formation of the landscape that served as the battlefield during the Civil War and the interpretive landscape that exists today.

The Chinn Ridge landscape is nationally significant for its association with the First and Second Battles of Manassas, July 21, 1861 and August 28-30, 1862, respectively. The rolling ridges and valleys of this agricultural landscape provided key terrain for observation, open fields of fire, and cover and concealment that were utilized in the military strategy for both the Union and Confederacy during these battles (see Figure 1-4). In both the First and Second Battles of Manassas, Union lines were formed on Chinn Ridge to take advantage of the critical vantage point from the high ground; however in both instances, they were pushed from the ridge by Confederate flanking movements. Following both battles, the Chinn House was used as a field hospital. The New York Monuments area was the scene of determined resistance by New York units to the Confederate attack at Second Manassas.[3]

Following the Civil War, several memorials were placed on the landscape to commemorate individuals and regiments who fought bravely in both battles. The cultural landscape is significant for these commemorative actions, which took place in the period from 1905 to 1940. Commemorative features within the study area include the monuments dedicated to the 5th New York, 10th New York, and 14th Brooklyn regiments, the decorative iron gate honoring the 5th New York regiment, and the Col. Fletcher Webster Monument. Further development of the landscape as a recreational and commemorative landscape occurred during the 1930s with the addition of the Chinn Farm to the Bull Run Recreational Demonstration Area. The period ends with the formation of Manassas National Battlefield Park in 1940. A monument honoring Texans who fought at Second Manassas was added to the parcel in 2012, outside of this period of significance.[4]

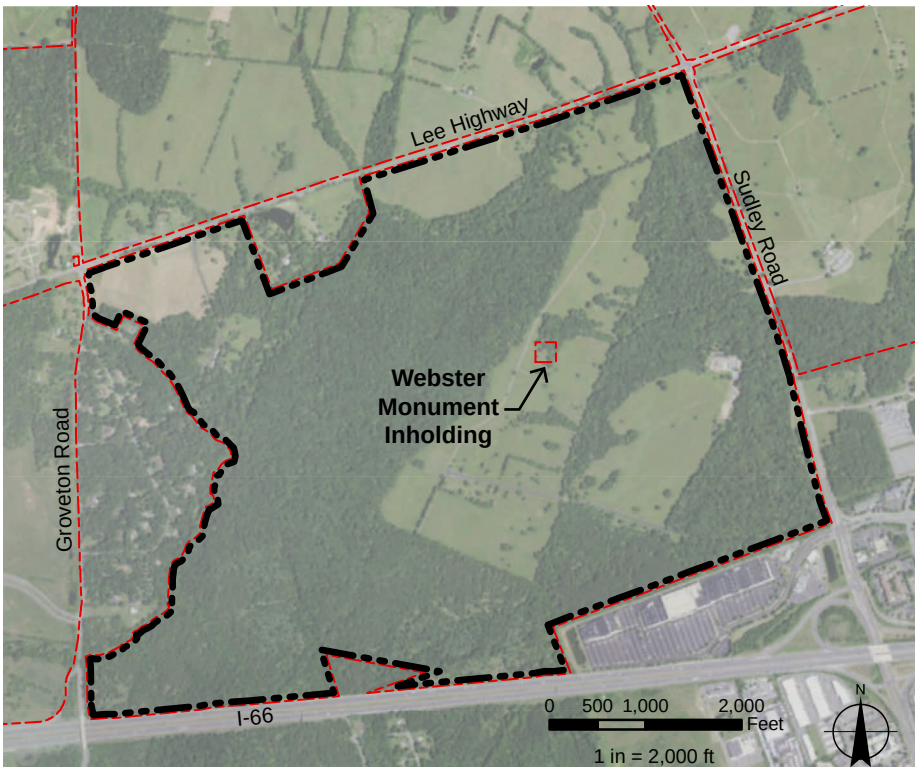

Figure 1-3. Project study area including Webster Monument inholding.

Figure 1-4. Fields and rolling hills of the study area, looking northeast toward the Stone House (QEA, 2018).

PROJECT METHODOLOGY

A cultural landscape approach is used for this project following federal standards guiding cultural landscape projects described in *A Guide to Cultural Landscape Reports: Contents, Processes, and Techniques* and *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*.[5]

In 2017, the National Park Service completed a Cultural Landscape Inventory (CLI) for Chinn Ridge, which documents the site history and evaluates landscape characteristics within the Chinn Farm area. The CLI formed the foundation for Part 1 of this report.

The project process is being undertaken in two parts.

PART 1

Part 1 of the project includes documentation of site existing conditions, site history research, and preparation of the cultural landscape assessment for the study area. In October 2017, project team members travelled to the project site to attend a project kickoff meeting, survey site conditions and conduct research. A project initiation meeting was held on 11 October 2017 to introduce the project team and discuss the project scope, goals, deliverables, schedule, site programming needs, and management issues.

Brenda Williams and Stephanie Austin, Quinn Evans Architects, conducted research using primary and secondary sources. The site history was developed from the documentation provided in the 2017 *Chinn Ridge Cultural Landscape Inventory* authored by Jennifer Oeschger as well as additional research to document the physical change of the landscape, with a focus on the New York Monuments and southwest woods areas that were not included in the CLI. Repositories consulted include the Manassas National Battlefield Park Headquarters, Manassas National Battlefield Park Archives, and Prince William County RELIC Room. Research assistance was provided by NPS employees Ray Brown, Chief of Interpretation and Cultural Resource Management; Jim Burgess, Museum Specialist, Manassas National Battlefield Park; Maureen Joseph, Regional Historical Landscape Architect, National Capital Region; Jennifer Oeschger, Cultural Resource Specialist and Architectural Historian, National Capital Region; and Daniel Weldon, Cultural Resource Specialist, National Capital Region. NPS-NCR project manager Rene Senos provided government-furnished data including various reports, studies, graphics, as well as ArcGIS shapefiles and maps produced by NPS-NCR GIS Office and NPS-NCR-RESS-CR Program.

Part 1 of the report provides a foundation of historical documentation to serve as a basis for understanding the evolution of the historic landscape. The historical information is presented herein as a narrative describing the physical development of the Chinn Ridge landscape during key time periods. Two historic period plans, for 1861-1865 and 1905-1940 illustrate historic conditions using consistent scales and graphic styles, to allow for easy comparison of landscape conditions from one period to the next.

Following documentation of the historic evolution of the physical landscape, existing landscape characteristics were assessed. Landscape characteristics relevant to the study area include Natural Systems and Features; Topography; Land Use; Spatial Organization; Buildings and Structures; Circulation; Constructed Water Features; Small-Scale Features; Vegetation; Views; and Archeological Sites.

The information regarding the development of the historic landscape, existing conditions, and analysis of integrity provide a foundation for making decisions about the future design and management of the landscape.

PART 2

The process of developing Part 2 of the report began with selection of a proposed treatment approach and development of lists of landscape issues and concerns. These topics are discussed in detail in Chapter 4.

Recommended treatment for the study area was developed through a collaborative process including the consulting team, Manassas National Battlefield Park staff, and NPS National Capital Regional Office staff. Based on the findings of Part 1 and confirmation of management issues during meetings held in October 2017 and March 2018, rehabilitation was selected as the preferred treatment approach.

The consulting team developed preliminary treatment alternatives and provided them to NPS prior to a treatment workshop held on May 1, 2018. The alternatives served as a basis for collaboration during the workshop and group site walk. A webinar on May 18, 2018 followed the workshop to integrate guidance from additional NPS staff. Chapter 5 of this report covers recommended treatment for aspects identified as preferred by the NPS, with supplemental best management practices provided in Chapter 6. Alternatives considered and dismissed are provided in Appendix B: Treatment Alternatives.

PROJECT GOALS

Cultural Landscape Report project goals are to:

1. Graphically document physical changes to the landscape as it evolved from its early development through the present day.
2. Summarize the general appearance of the project area from its early development through present day through a combination of graphic illustrations and narrative.
3. Document existing conditions of the project area.
4. Provide treatment alternatives for the future management of the historic landscape.
5. Reestablish spatial organization fields, farmyard, and forests. Utilize appropriate management strategies such as fence line placement, mowing patterns, and/or other ideas, based on historic documentation and administrative needs.
6. Define historic views, now obscured, to the New York Monuments, the Stone House and the crossroads for Sudley Road and Warrenton Turnpike, and Henry Hill. Develop a management plan to open views as defined by the General Management Plan, and Fence Lines, Fields and Forest Cultural Landscape Report.
7. Evaluate external viewsheds from the Chinn Ridge project area and provide strategies for protection outside the park's boundaries.
8. Provide a preferred treatment recommendation for managing the historic landscape.
9. Define park maintenance yard operations and provide solutions to access and conflicting uses.
10. Develop recommendations, using ABAAS and Outdoor Developed Area Guidelines to guide location and design of trails and other visitor amenities to increase accessibility where appropriate.
11. Improve trail network connections to adjacent park sites (i.e. Visitor Center, Groveton, Stuarts Hill). Define treatment for pedestrian and bridle trails and trail support structures for problematic areas where trails are impacted by runoff and streams.
12. Develop vegetation management strategies for the project area, including but not limited to, forest and field management, specimen tree and witness tree protection following the guidance in the Fence Lines, Fields and Forest Cultural Landscape Report for the park.
13. Provide stabilization guidance for the remnant ruins for the Chinn House and other historic masonry features on the property (cistern, cemetery wall, culverts).
14. Provide vehicular protection solutions for the historic New York Avenue gates that have been repeatedly struck by vehicles on Lee Highway.

Endnotes

1 Laura Virginia Trieschmann, "Manassas Battlefield Historic District (Amended and Boundary Expansion), Prince William County, Virginia." National Register of Historic Places Registration Form, 2006, 40.

2 Jennifer Oeschger, *Chinn Ridge Cultural Landscape Inventory, Manassas National Battlefield Park* (US Department of the Interior, National Park Service, Draft December 2016); National Park Service, *Final General Management Plan/ Environmental Impact Statement, Manassas National Battlefield Park* (Washington, DC: US Department of the Interior, National Park Service, 2011 [final submitted 2008; signed 2011]); Daniel Schiable with Jane Anderson, Judith Early, Saylor Moss, and Nancy Sarai Vazquez, *Fence Lines, Fields, and Forests: Manassas National Battlefield Park Cultural Landscape Report* (Washington, DC: National Park Service, National Capital Region, Cultural Resources Program, June 2013).

3 Trieschmann, "Manassas Battlefield Historic District, Prince William County, Virginia." National Register of Historic Places Registration Form; and Oeschger, *Chinn Ridge Cultural Landscape Inventory, Manassas National Battlefield Park.*

4 Trieschmann, "Manassas Battlefield Historic District, Prince William County, Virginia." National Register of Historic Places Registration Form; and Oeschger, *Chinn Ridge Cultural Landscape Inventory, Manassas National Battlefield Park.*

5 Robert R. Page, Cathy A Gilbert, and Susan Dolan, *A Guide to Cultural Landscape Reports: Contents, Processes, and Techniques* (Washington, DC: United States Department of the Interior, National Park Service, Cultural Resource Stewardship and Partnerships, Park Historic Structures and Cultural Landscapes Program, 1998); and Charles Birnbaum and Christine Capella Peters, *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes (*Washington, DC: United States Department of the Interior, National Park Service, 1996).

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Site History

Chapter 2

Chapter title page: Excerpt of W.G. Atkinson, *Map of the Battle Fields of Manassas and the Surrounding Region Showing the Various Actions of the 21st July, 1861 Between the Armies of the Confederate States and the United States*, 1861 (Yale University).

Chapter 2: Site History

This chapter presents an overview of the physical evolution of the Chinn Ridge study area. It begins with a statement of significance describing the historical importance of the property during three periods related to plantation development in the Virginia Piedmont (1769-1860), military use during two engagements of the Civil War (1861-1865), and commemoration and memorialization following the battles (1905-1940). This is followed by a chronological account of landscape condition from the initial formation of the physical landscape to today. Time spans associated with changes to the landscape or its use are presented including:

- Indigenous occupation before 1608 AD
- Early Euroamerican settlement, 1608-1724
- Colonial Virginia, 1725-1768
- Plantation development in Prince William County, 1769-1860
- The Civil War, 1861-1865
- Recovery, 1866-1904
- Commemoration and Memorialization, 1905-1940
- National Battlefield Park, 1940-present

For each period, a narrative summary highlights modifications made to the landscape during the period. A detailed chronology is provided in Appendix A. The 2017 *Chinn Ridge Cultural Landscape Inventory* (CLI) provides the basis of the site history for Chinn Farm.[1] This is supplemented by research undertaken for the current project to address the New York Monuments area. Additional information related to the remainder of the study area is also included. The site history builds on other cultural resource documents that have been developed for the battlefield park, including the 1995 administrative history (republished in 1998) *Battling for Manassas: The Fifty-Year Preservation Struggle at Manassas National Battlefield Park*; 2006 Manassas Battlefield Historic District (Amended and Boundary Expansion) National Register of Historic Places Registration Form; 2011 (signed) *Manassas National Battlefield Park General Management Plan*, the 2013 *Fence Lines, Fields and Forests: Manassas National Battlefield Park Cultural Landscape Report*; and the 2014 *Manassas National Battlefield Park Unfinished Railroad Cultural Landscape Report*.[2]

SIGNIFICANCE

The study area cultural landscape is eligible for listing in the National Register of Historic Places under Criteria A and D. Under Criterion A, the study area is nationally significant for its association with the American Civil War battles of First and Second Manassas. Also under Criterion A, the study area cultural landscape is nationally significant for preservation and commemoration efforts following the Civil War. The property derives local significance under Criterion A in the area of agriculture for the development of large plantations in Prince William County, Virginia that operated under slave labor and profited the landowning Virginia gentry during the 18th and 19th centuries.

The Chinn Ridge cultural landscape is nationally significant under National Register Criterion D for its potential to provide archeological information about occupation by Indigenous peoples in the Paleo-Indian through early contact periods, plantation life in 18th and 19th-century Virginia, and the Battles of First and Second Manassas.[3]

CRITERION A

Local

The period of significance associated with agriculture is from 1769-1860. This period begins with the occupation of the Chinn Farm portion of the study area by Bernard Hooe Sr. in 1769. First known as Hazel Plain, the plantation's size and scope rivaled other plantations established in the area and its spatial organization is indicative of the ordered plantation of 18th century Virginia. Although the pattern of large- scale plantation at Hazel Plain ceased in 1825 with the death of Bernard Hooe Sr., surviving records indicate that agricultural practices continued with the planting of smaller acreages of more diversified crops until the eve of the Civil War. The New York Monuments area was acquired by the Dogan family in 1800 as part of the Peach Grove plantation. The land continued to be managed by the Dogan family as farmland and woodlots throughout the period. The end of this period is the beginning of the Civil War, when two significant battles altered the study area landscape.

National

The period of significance for military history is from 1861-1865. The study area cultural landscape is associated with two major engagements of the Civil War: the First Battle of Manassas (July 21, 1861) and the Second Battle of Manassas (August 28 through August 30, 1862). In the First Battle of Manassas, the Union objective was to take possession of Manassas Junction, an important railroad junction between the Manassas Gap Railroad and the Orange & Alexandria Railroad from which railroad connections extended to Richmond, the capital of

the Confederacy, and the Shenandoah Valley. The high elevation of Chinn Ridge was key terrain that provided an important vantage point for military tactical maneuvering. During the last phase of the battle, the Union right flank moved to occupy the high ground at Chinn Ridge. This position was soon broken by two brigades of Confederate reinforcements, who charged up the ridge, flanking the Federal forces and pushing them back toward Sudley Road.

In the second battle, the Union army reoccupied Manassas Junction, with an objective to seek and destroy the Confederate forces led by General Stonewall Jackson that had intruded behind Union lines. Within the study area, heavy action occurred on the ridge east of Groveton on the evening of August 29. On August 30, portions of the study area experienced some of the most intense fighting of the battle, first at the New York Monuments area where Union regiments suffered heavy losses as Confederate General Longstreet's Line advanced from the west, and then again at Chinn Ridge, where Federal troops made a stand before retreating to their final position along Sudley Road. Following both battles, the Chinn House and associated outbuildings were used as a field hospital.

The period of significance for commemoration and memorialization is 1905-1940. The first monument erected within the study area landscape was the now-missing 7th Georgia maker placed in 1905 by surviving veterans during their reunion on the battlefield. The 14th Brooklyn Monument, 5th New York Monument, 10th New York Monument, and 5th New York decorative iron gate were added to the landscape in 1906, followed by the Col. Fletcher Webster Monument erected in 1914. Further development of the landscape as a recreational and commemorative landscape occurred during the 1930s with the addition of the Chinn Farm to the Bull Run Recreational Demonstration Area. The period ends with the formation of Manassas National Battlefield Park in 1940.

CRITERION D

National

The study area cultural landscape is significant under Criterion D for its potential to yield information important to understanding indigenous occupation, agricultural development, and military history. Archeological investigations beginning in 1936 have revealed evidence of plantation outbuildings, farming practices, and African-American slave life, as well as evidence of the fighting associated with the Battles of First and Second Manassas at the former Chinn Farm. Evidence of indigenous occupation of the study area dating to the Paleo-Indian through early contact periods has also been recorded within the study area, and the site has potential to contain resources that may provide greater understanding of the cultures that lived in and utilized this landscape.

Table 2-1. Study area periods of significance

START YEAR AND END YEAR	HISTORIC CONTEXT THEME	HISTORIC CONTEXT SUB-THEME	HISTORIC CONTEXT FACET
11,000 BC - CE 1862	Archeology	Prehistoric Historic - Aboriginal Historic- Non-aboriginal	
CE 1769-1860	Developing the American Economy	Agriculture	Plantation Agriculture
CE 1861-1865	Shaping the Political Landscape	The Civil War	Battles in the North and South
CE 1905-1940	Transforming the Environment	Historic Preservation	The Federal Government Enters the Movement

SITE HISTORY

A detailed site chronology is provided in Appendix A.

INDIGENOUS OCCUPATION, BEFORE 1608

The land now comprising Manassas National Battlefield Park was first inhabited by American Indians between 13,000 and 10,000 years ago. Habitation areas were typically located near streams, where occupants would have access to a wide range of resources. Archeological studies have identified several Indigenous occupation sites within the study area, including Paleo-Indian and Early Archaic lithic scatter through early contact period artifacts, and are described in greater detail in the site chronology.[4] Although not within the scope of the CLR, consultation of descendants of early Indigenous occupants could inform a more comprehensive understanding of human use and cultural connections to the landscape during this period.

EARLY EUROAMERICAN SETTLEMENT, 1608-1724

The natural resources and landscape characteristics that made the area a good location for Indigenous Peoples also attracted Euroamerican settlers to Virginia, who initially arrived in the region in the early 1600s. Access to fresh water, woodland, and open grasslands provided the necessary natural resources required for establishing agricultural-based settlement.[5] John Smith, English explorer and sea captain, was one of the first European visitors to what would become Virginia. In 1608, Smith sailed up the Potomac River, noting villages belonging to the ancestors of the Piscataway peoples at what is now Theodore Roosevelt Island.[6]

Early Euroamerican agriculture within Virginia was centered on tobacco cultivation, which soon became the staple commodity around which Virginia's mercantile-agrarian system formed. Large tobacco plantations were established on the York, Rappahannock, and Potomac Rivers, utilizing enslaved peoples to complete the labor-intensive tasks of tobacco farming. By the early eighteenth century, tobacco cultivation had caused soil erosion and nutrient depletion exhausting cropland in the Virginia Tidewater. Drawn by the abundance of land outside the Virginia Tidewater and supported by a growing slave trade, tobacco cultivation soon spread to the Virginia Piedmont.[7]

The land that would eventually become Manassas National Battlefield Park was granted from British King Charles II to his supporters, including Lord Culpeper, who acquired rights to vast quantities of land between the Rappahannock and Potomac Rivers. After his death, the property passed to Lord Culpeper's daughter, who married Thomas, Lord Fairfax. The property became known as the Northern Neck Proprietary or the Fairfax Land Proprietary.[8] A number of agents served the

proprietary, including Robert "King" Carter, a prominent member of the Virginia colony who also held positions as a justice of the peace for Lancaster County, a vestryman for Christ Church Parish, Speaker of the House of Burgesses, and served as a member of the council for over thirty years.[9]

Euroamerican settlers cleared grasslands to establish agricultural fields, cut woodlands for building materials, firewood, and other uses, and suppressed fire to protect permanent structures. These activities resulted in the evolution of a new mosaic of land patterns.[10]

COLONIAL VIRGINIA, 1725-1768

Land within the study area can be traced through three primary lines of ownership. The land on the north side of Youngs Branch totaling 35 acres was originally part of three large tracts owned by Robert "King" Carter. As an agent for the Northern Neck Proprietary from 1701 to 1711 and 1722 to 1732, Carter was able to identify the best land within the proprietary, and had the opportunity to patent thousands of acres in his name and the names of his children.[11] In 1724, he purchased the "Lower Bull Run" and "Great Bull Run" tracts. Together with the "Middle Bull Run" tract, patented by his son Landon Carter five years later, these tracts made up most of the land within the current boundary of Manassas National Battlefield Park.[12] In the 1750s, Landon Carter, Sr. sent two of his younger sons, Landon Carter, Jr. and John Carter, to manage the family's holdings in Prince William County. Landon Carter, Jr. lived at the Pittsylvania plantation, situated along Bull Run, and managed 2,600 acres of the surrounding landscape, which included the northern portion of the study area.[13] This sizeable plantation was worked by a large number of slaves, growing corn, oats, tobacco, wheat, and flax, and also included pastures for livestock and woodlots managed to provide fuel and building and fencing materials.[14] The land would eventually be subdivided into two estates that form the northern portion of the study area.

A 280-acre tract land that would become Bernard Hooe's Hazel Plain estate, and later Chinn Farm, was granted from Thomas Lord Fairfax to Ann Bivin in 1725. It was located "on the middle grounds between branches of Broad Run and branches of Bull Run."[15] In 1734, the Bivin property and an adjoining 169-acre tract was purchased by the Haynie family via lease and release. The lease and release process was a common form of property transfer, which allowed owners to establish a tenant farmer on the land with terms requiring rent payment and improvement on the property in the form of crops and buildings; at the end of the lease period the landlord would release his interest in the property.[16]

These large expanses of land were typically developed through two methods. In the Bull Run area, it was common for land to be divided into tracts for tenant farming. Tenant farmers established agricultural practices in the sparsely populated region, then considered to be a frontier. Alternately, small plantations of approximately 1000 acres in size were established by landowners, and farmed to produce a staple cash crop. [17]

As agriculture developed within the region, an early road system followed, typically along the edges of existing fields or property boundaries to connect nearby farms and villages. Fords developed over streams where the natural topography allowed for easy access; this was a particular challenge along Bull Run, where the high bluffs limited available routes.[18]

PLANTATION DEVELOPMENT IN PRINCE WILLIAM COUNTY, 1769-1860

Beginning in the late eighteenth century and early nineteenth century, the large tracts acquired by Robert "King" Carter's heirs and the Haynie family were passed to new generations or sold, and further developed into plantations (see Figure 2-1).

Hazel Plain Plantation

Bernard Hooe purchased the Haynie property in 1769 and established his plantation Hazel Plain on the crest of a high ridge in what is now the Chinn Farm portion of the study area. Bernard Hooe's Hazel Plain plantation was laid out as an ordered landscape centered around the mansion house. The plantation included a formal arrangement of garden, terraces, outbuildings, and a family cemetery immediately adjacent to the house, with expansive fields laid out along the high, flat ground of Chinn Ridge and Bald Hill to the south (see drawing HP-1).[19]

Bernard Hooe Sr.'s mansion, also titled Hazel Plain, was constructed on the crest of Chinn Ridge, which offered an expansive view of Chinn Branch valley to the northeast, as well as commanding views in all directions. The main view corridors of Hazel Plain extended to the northeast toward the intersection of the Warrenton and Alexandria Turnpike and Sudley Road (at the Stone House), and to the southwest toward Balls Ford Road. These expansive overlooks would have given Bernard Hooe an excellent view of his working fields from his home. The Georgian mansion perched on the crest of the ridge would have been an imposing symbol of authority on the landscape.[20]

The plantation layout was driven by Georgian ideals, as described in the 2017 *Chinn Ridge Cultural Landscape Inventory*:

> Hazel Plain was more than a house and a few outbuildings; it was a reflection of a way of life, a period concept of order and good organization, characteristic of the 18th and 19th centuries. According to dictates of the Georgian mode, a proper gentleman's house was not only substantially constructed, but the predictable order of its façade and of its spatial arrangement was extended to the surrounding gardens and to the layout of the entire estate. The strict hierarchy of the landscape demonstrated a strong sense of the planter's dominance over both nature and society. The world was, in their view, "suitably improved only after it was transformed from its chaotic natural condition into a scene marked with right-angled corners and axes of symmetry."[21]

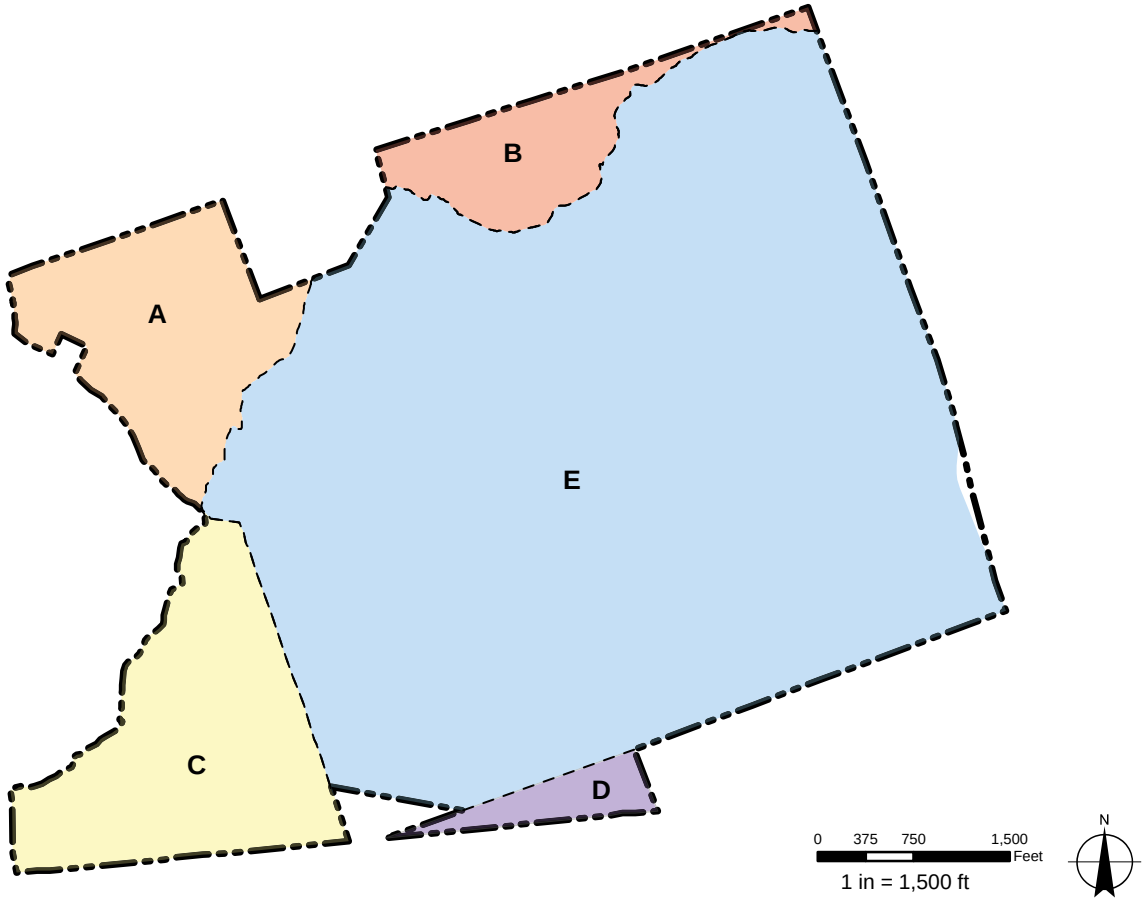
The mansion house was situated astride the division between the two southern quarters of the property. The house was a five-bay, double-pile, two-story wood frame building set on a high sandstone foundation measuring 30 by 47 feet. It boasted two twin exterior chimneys, made of brick, on each gable end and a full English cellar.[22]

Previous reports have indicated that Hazel Plain was constructed in 1809, however, several historic records analyzed in the 2017 *Chinn Ridge Cultural Landscape Inventory* provide evidence of the earlier 1769 construction date:

> The exterior style of the Hazel Plain house was decidedly Georgian, but the interior featured elements of the earlier Colonial style. The first floor plan shows a boxed, winding stair at the northern wall. A boxed stair is indicative of the 1769 build date. Boxed, winding staircases, sometimes with doors concealing their access, were a common feature of Colonial architecture. True Georgian interiors included "handsome" open-string, straight-run staircases in the entrance hall with balusters and visible step ends. A fine example of this type of interior exists at Harmony Hall, a plantation home across the Potomac River in Maryland, built in the same year, 1769.[23]
>
> Further evidence that the Hazel Plain house was built before the commonly believed date of 1809 survives in a fire insurance policy dated 1805 for Prince William County. In the record, Hazel Plain is valued at $1500 for insurance purposes, although it is noted that it would cost $2000 to rebuild the house in case of a fire, $500 is deducted for "decay." In 1805, the plantation home would have been 36 years old.[24]

A 1981 archeological analysis of the property by Thomas McGarry indicates that the southwest quarter of the property was used for formal gardens, a bowling green, or some other manicured area, arranged in three terraces. To the north of the mansion within this quarter was a carriage house, that McGarry indicates was likely constructed in two parts connected by a walkway.[25]

Figure 2-1. Property ownership within the study area, 1769-1860.



Legend

Historic Property Line

Chinn Ridge CLR Study Area Boundary

A Landon Carter Sr. (1729-1778)
Landon Carter II (1778-1810)
Part of Peach Grove estate owned by:
H. Dogan (1810-1823)
W. Dogan (1823-1853)
M. Dogan/L. Dogan (1853-)

B Landon Carter Sr. (1729-1778)
Landon Carter II (1778-1787)
Wormeley Carter (1787-1815)
Ann Hamilton (1815-1843 or 1845)
ð hn Dogan (1843 or 1845-1875)

C unknown; likely part of Hooe estate;
Compton farm by 1861

D unknown; Wheeler farm by 1861

E Bernard Hooe (Hazel Plain) (1769-1825)
Margaret Pratt Hooe (1825-1836)
Property passes between Hooe heirs
and other owners including Margaret
Pratt Hooe, Elizabeth Thacker Hooe,
Lucy Hooe Buckner, William H. Fowle,
ð hn Kemp, Sophia ð nes, William
Yates Downman (1836-1853)
Benjamin Chinn (1853-1870)

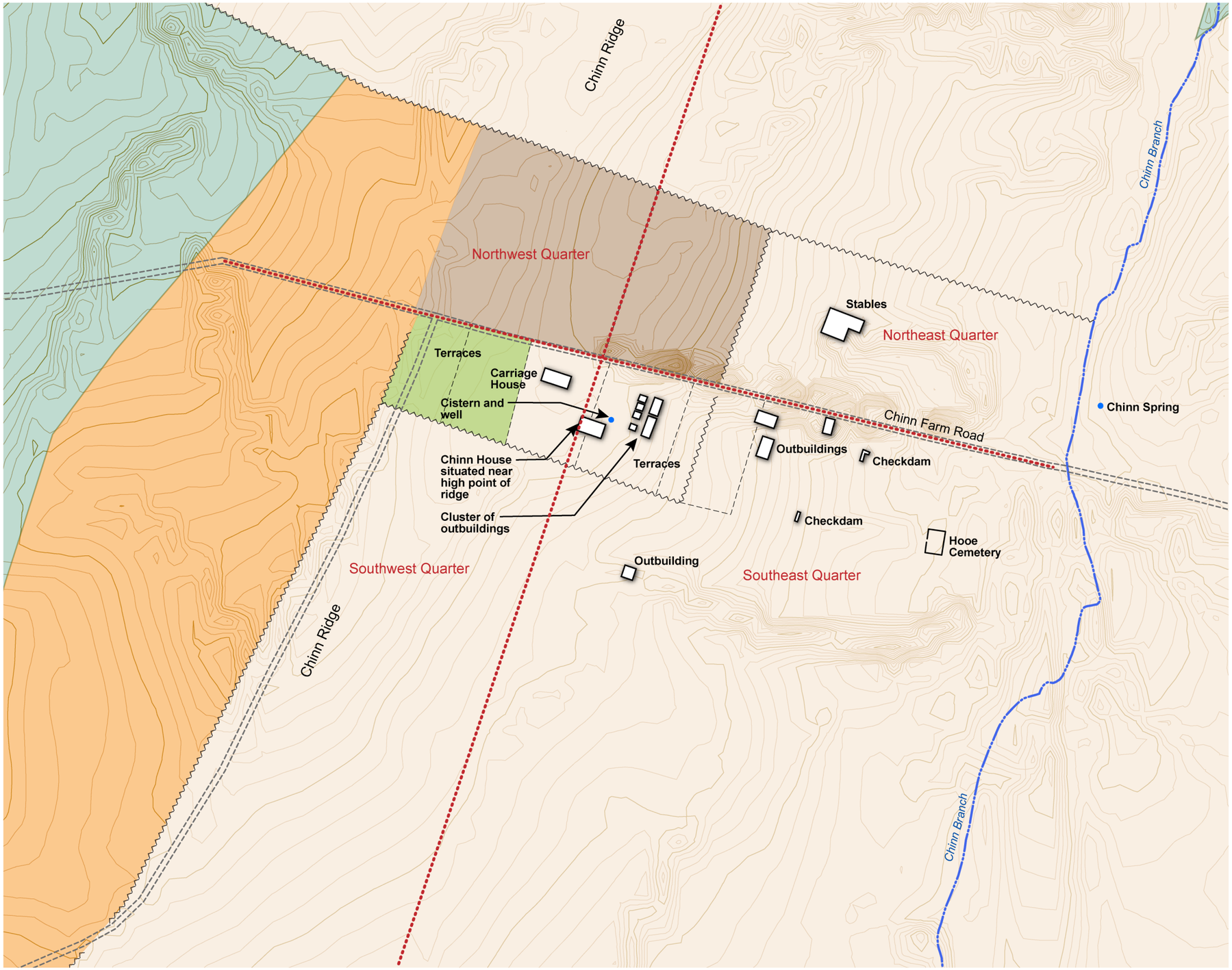
The southeastern quarter was also made up of a series of three terraces; two of these terraces contained household gardens near the kitchen and other support features. A well and cistern were located adjacent to the northeast corner of the house; historic photographs indicate that these features were at one time covered by a shed roof connected to the main structure. A complex structure consisting of eight discrete units was located near the northeast corner of the mansion. It is not known if this consisted of two rows of outbuildings, or a single large structure. McGarry hypothesizes that the structure may have served as servant's quarters, a summer kitchen, or storage buildings. A series of outbuildings and drainage structures continued down the terraced slope to the east of the mansion. An ice house or spring house and a root cellar were located on these lower terraces, as well as a series of check dams constructed as simple piles of rocks. [26]

The Hooe Cemetery sat at the bottom of the terraced slope approximately 1,000 feet east-southeast of the mansion. In 1795, Sarah Hooe was buried in the Hooe family plot. This is the earliest known burial in the Hooe Cemetery. Over the course of its history, upwards of 30 individuals may have been buried in the cemetery.[27]

The northeast quadrant was occupied by stables. This was a large bank barn constructed in a semi-subterranean fashion with the ground floor excavated into the hill. The lower portion was likely entered from the east, while the upper portion was entered from the west. There were two ramps, located on the north and south sides of the structure.[28]

Quarters for enslaved individuals at Hazel Plain were most likely located on the opposite ends of Chinn Ridge, at the periphery of the property. One structure that was likely used as a dependency was located at the northwest corner of the property, near the intersection of Sudley Road and Warrenton Turnpike.[29] Placed atop a knoll with eroded soils and exposed bedrock, this site would not have provided good farmland. For owners looking to maximize crop production, placing slave quarters at such a location would have been the most efficient use of land.

During the time period of 1810-1822, as many as 50 enslaved African Americans resided at the plantation. The Hooe Dependency may have been constructed to accommodate the sharp rise in enslaved laborers at the plantation in 1810.[30] This growth in the slave population may be linked to the acquisition of the Brownsville tract by Bernard Hooe in 1818, a 400-acre tract of land bounded by Hazel Plain lands to the west.[31] A second quarter for enslaved persons may have been located along present day Balls Ford Road, where the 1877 Warren survey recorded an



Chinn Ridge Cultural Landscape Report
Manassas National Battlefield Park

1769-1860
Chinn Farm Diagram

Legend

- Building or structure
- Farm road
- Stream
- Mixed forest
- Pasture
- Bowling green
- Crop Field
- Garden
- Fence (all types)
- Constructed water feature
- 10-foot contour (2018)
- 2-foot contour (2018)
- Division between plantation quarter
- Edge of terrace

Notes and Sources

1. Atkinson, 1861 and Warren, 1878: vegetation, fencelines, streams, buildings and structures, roads.
2. MANA GIS Archives: topography, streams, roads.
3. Parsons 1996 CLI: property boundaries, fencelines.
4. McGarry, Manassas Historic Sites Survey, Manssas National Battlefield Park, 1982: archeological features. Features identified through this survey require additional investigation for verification.

0 100 200 400 Feet

1 in = 200 ft

N

NPS No. MANA 379 137862 | **HP-1**

QUINN EVANS ARCHITECTS

National Park Service
National Capital Region

"old log cabin." This layout would have kept the enslaved living quarters within visual surveillance of the main house, while positioning the field hands in close proximity to their work areas.[32]

Over the course of the 1820s, the enslaved population at Hazel Plain was dramatically reduced. From 1820 to 1822, the plantation reached its maximum population of 50 enslaved persons. In 1823, most of the enslaved laborers at Hazel Plain were transferred to other family members, primarily James Hewitt Hooe, who owned Bradley Plantation and was Bernard Hooe Sr.'s son-in-law. Bernard Hooe Sr. was 82 years old by this time and was likely not able to operate the plantation, and his children had long since moved away from the family farm.[33] By Bernard Hooe's death in 1825, only 15 slaves remained at Hazel Plain. After this time, the dependency site at Hazel Plain was no longer occupied. It is possible that without enslaved laborers to work the plantation, agricultural operation at Hazel Plain ceased.[34]

Upon his death in 1825, Bernard Hooe Sr. willed portions of his land to his wife Margaret Pratt Hooe and to his daughters, Elizabeth Thacker Hooe and Lucy Hooe Buckner.[35]

In 1831, William H. Fowle, husband of Elizabeth Thacker Hooe Fowle, Bernard Hooe Sr.'s granddaughter, advertised the Hazel Plain estate for rent in the *Alexandria Gazette*. Bradley Plantation was offered for rent along with Hazel Plain. The advertisement read:

> "HAZEL PLAIN, situated between Centreville and Haymarket, on the Turnpike Road to Warrenton, containing about 600 acres, with a part well taken in clover. Crops of wheat and rye have been sown on both these places the present fall."[36]

Three years later, Fowle advertised the 550-acre Hazel Plain tract for sale in the *Alexandria Gazette*, along with five other tracts for a total of over 3,200 acres. The historical record is not clear as to the source of the discrepancy in the number of acres at Hazel Plain.[37]

Land ownership records are limited for the period of time between Margaret Pratt Hooe's death in 1836 until Hazel Plain was sold to Benjamin Tasker Chinn by his nephew William Yates Downman in 1853.[38] As described in the 2017 *Chinn Ridge Cultural Landscape Inventory*, some accounts suggest that William H. Fowle inherited the property after the death of his wife Elizabeth Thacker Hooe Fowle.[39] Other accounts suggest that a man named Kemp owned the property for a short

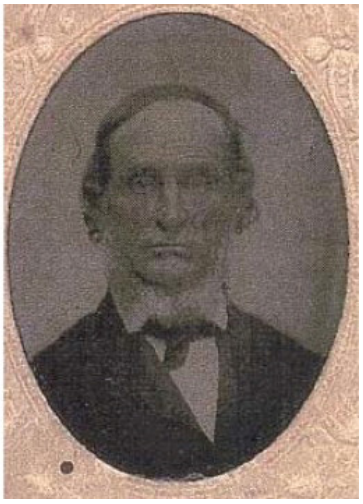


Figure 2-2. Benjamin Tasker Chinn (source: ancestry.com)

time after the Hooe descendents.[40] By 1850, the plantation was owned by Sophia Elizabeth Chinn Downman Jones.[41]

In 1851, her brother Benjamin Tasker Chinn, builder and owner of the Ben Lomond plantation south of Hazel Plain, moved his family to Hazel Plain to care for his ailing sister, Sophia Jones. Upon her death later that year, Sophia Jones conveyed the 550-acre Hazel Plain to her son William Y. Downman and his wife Mary Ann Downman.[42] Two years later, Benjamin Tasker Chinn purchased Hazel Plain from his nephew William Y. Downman for $6,500.[43]

The Hazel Plain estate was once again offered for sale in 1856. In the advertisement, Benjamin Tasker Chinn described the estate as 550 acres, with a two story frame dwelling house containing 8 rooms and all necessary outbuildings.[44]

Peach Grove

In 1800, Henry Dogan acquired land from Landon Carter, Sr. and established a plantation named Peach Grove in the northwest corner of the study area, and purchased additional acreage from Wormley Carter in 1810. Development within the northwest corner of the study area, which formed a portion of the Peach Grove plantation, appears to have been less extensive than the formally ordered layout of Hazel Plain.[45]

The property was passed through the Dogan family. By the time Medora L. Dogan was willed two parcels southeast of Groveton in 1854, at least one structure referred to as the "Wigginton's House" was present within this area. Civil War era maps alternately place this structure on the crest of the hill that would later be occupied by the 5th and 10th New York Monuments, or along the Warrenton Turnpike. However, as the structure is not mentioned in battle accounts, it may have been missing by the time of the second battle. The Dogan family also controlled a 50-acre woodlot in this portion of the study area.[46]

Rosefield

Wormley Carter, son of Landon Carter, Jr., likely established an independent household in the northeast portion of the study area in the late 1780s, following his marriage to Sally Edwards in 1787. The land, previously managed as part of the expansive Pittsylvania plantation, was passed from Landon Carter, Sr. to Landon Carter, Jr. in 1778. Wormley Carter's Rosefield plantation was situated west of Pittsylvania on a knoll overlooking Youngs branch. The house was surrounded by cleared land and scattered woodlots.[47] Wormley Carter farmed diversified grains including corn, wheat, and oats, and operated a study farm for some time.

It is unlikely that he continued tobacco farming at Rosefield, as he did not have the large number of slaves to keep the labor intensive crop under cultivation.[48] Wormley Carter died in 1815, whereupon the 125-acre Rosefield property passed to his daughter Ann Hamilton (see Figure 2-3).[49] The property remained in the Carter family until the 1840s, when the Rosefield estate was purchased by John Dogan.[50]

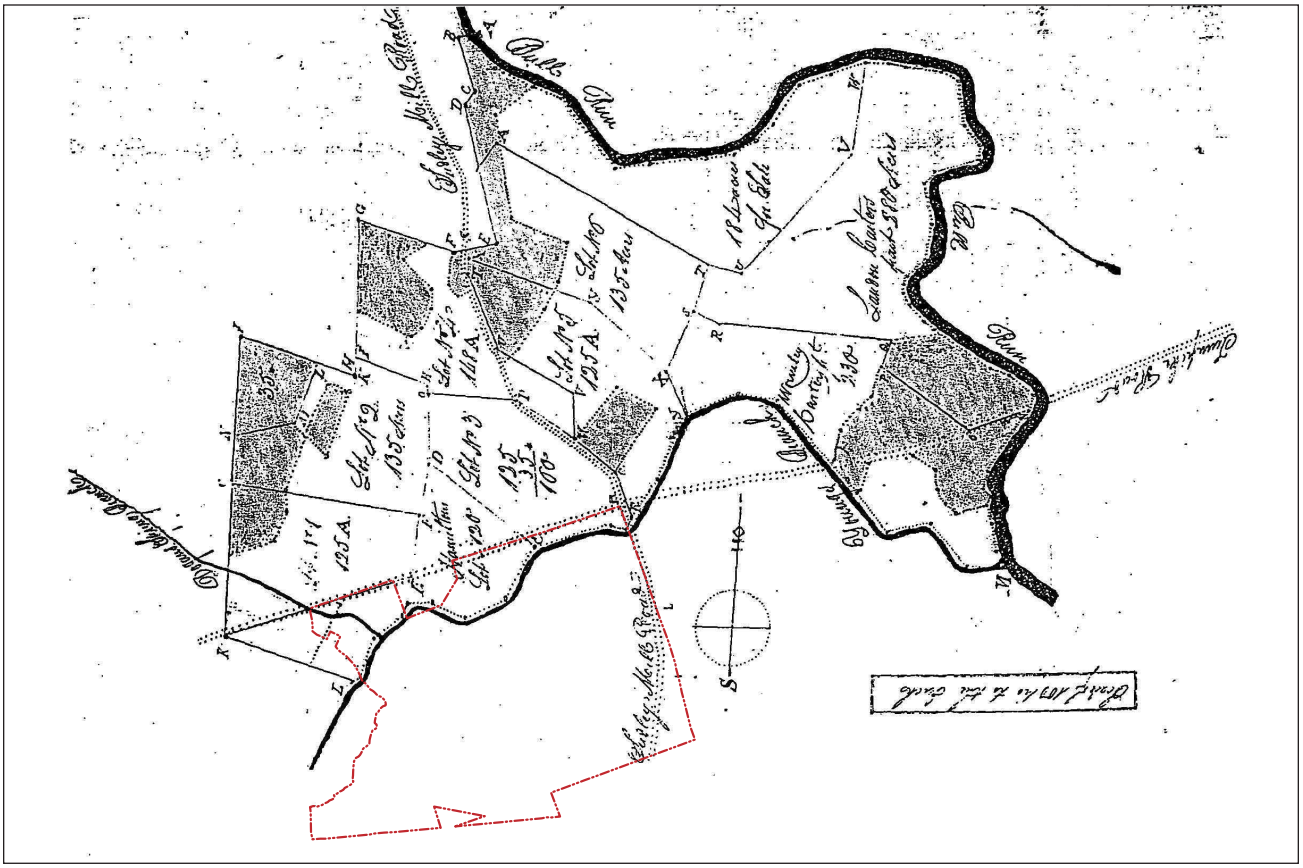


Figure 2-3. 1815 plat map showing division of property to Wormley Carter's heirs near the intersection of Warrenton Turnpike and Sudley Road. The southern portion of the "Hamilton" parcel and Lot No. 1 are located in the CLR study area (Prince William County).

Agricultural Diversification

Beginning in the 1780s, agricultural production in the Virginia Tidewater region shifted from tobacco as a staple crop to a more diversified farming system. As described in the 2017 *Chinn Ridge Cultural Landscape Inventory*:

> From the earliest land grant to Bernard Hooe's ownership, the lands of Hazel Plain were no doubt planted in tobacco. The shift of tobacco operations out of the Virginia Tidewater can be cited as the primary reason that the area was settled. In addition to exporting for foreign markets, tobacco was used as a commodity to pay rents on land and to settle debts. In 1791 Bernard Hooe leased 150 acres to Benjamin Thomas, with the terms of 1300 pounds of tobacco to be paid yearly for the remainder of Thomas' and his heirs' lives. The number of enslaved laborers that Bernard Hooe claimed for personal property taxes also supports the operation of a tobacco plantation.[51]
>
> As in the Tidewater, however, tobacco in the Piedmont eventually became non-viable in the exhausted soils. As early as the 1780s, many of Piedmont Virginia's wealthiest planters believed that switching to wheat would not only raise profits but would result in better agricultural practices. In particular, the switch would allow them to abandon the soil-exhausting planting methods associated with tobacco. Farmers discovered that grains flourished in depleted soils left by tobacco production. George Washington was an early promoter of this idea. Subsequent farmers in the Virginia Piedmont grew tobacco for cash, but they established more diverse farms with smaller landholdings. The new smaller farms began to experiment with other crops, including corn, wheat, oats, and rye; and they became heavily engaged in animal husbandry.[52]
>
> Despite the likelihood that by the early 1800s, Hazel Plain was producing grains instead of tobacco, the use of enslaved labor persisted. Piedmont Virginia planters had diversified their crops, and their laborers typically produced several types of grains, raised livestock and maintained orchards. This created an agricultural cycle with very little downtime, and periods during harvest and planting when planters expected a large amount of labor. A study of the Virginia Piedmont by James Irwin found that large slaveholding units (20 or more slaves) were significantly more specialized in wheat production than smaller farms nearby. Wheat occupied a local cash crop "niche" similar to that of cotton across the larger expanse of the South. Irwin states that, "Slavery as an institution and organizational form was fully compatible with a wide range of farm products and work routines."[53]

In addition to agricultural production, woodlots were an important part of development of the Virginia Piedmont landscape. Land owners retained steep, sloping ground and rocky, shallow soils not suitable for crop production as woodlots. Woodlots produced quality saw lumber and cord wood for use by the farm, and were used for building material, fences, house shingles, and fuel.[54] Through grazing and clearing, these areas were typically kept clear of understory brush and downed timber.[55]

Fences were constructed along roads to keep animals within fields, and to mark property boundaries. Fences were typically constructed of chestnut, oak, or cedar

harvested from local woodlots. The most commonly used fence type was the Virginia rail or worm fence. The chief advantage of this fence type was the absence of posts, allowing the fence to be constructed without digging post holes or nailing boards. They could be constructed quickly, as well as disassembled and moved to different locations.[56] Post-and-board fences were typically used to enclose gardens, orchards, and animals. These fences were often placed in close proximity to the farm house.[57]

1850 Agricultural Census

According to the 1850 Agricultural Census, the Hazel Plain plantation, then occupied by Sophia Jones, consisted of 550 acres valued at $5,000. The farm had three horses, four milk cows, two working oxen, eight other cattle, and fifteen swine, with a total value of $300 in stock and $18 worth of slaughtered animals. The plantation produced three bushels of peas and beans, eight bushels of Irish potatoes, 150 pounds of butter, one ton of hay, and 30 pounds of beeswax and honey. Crops were likely used both for subsistence and sold for cash.[58]

The 1850 Agricultural Census provides overall data for the John D. Dogan and William H. Dogan estates, portions of which were located within the study area. William H. Dogan, whose Peach Grove estate is in the northwest corner of the study area, grew wheat, rye, corn, oaks, and buckwheat. He also raised sheep, swine, cattle, milk cows, oxen, and horses. John D. Dogan, whose estate included a small portion of the land north of Youngs Branch within the study area, benefitted from high yields of wheat, rye, corn, and oats, and kept smaller quantities of livestock including swine, cows, cattle, oxen, and horses. It is not clear from these records which of these activities were taking place within the study area, and which were in other portions of the estates.

It is apparent that agricultural land use was prevalent, and the remaining farms within the study area were likely leased and are not readily identifiable from the agricultural census.

1860 Agricultural Census

In 1860, Chinn Farm consisted of 450 acres of improved property and 100 acres of unimproved land (note that wood products are not listed in the agricultural summary, so it is unclear what function the unimproved land served). Benjamin Chinn had increased the farm's productivity and produced a diverse array of crops, raising the cash value of the farm to $8,250 with $120 worth of farming implements. He owned 6 horses, 5 milk cows, 2 working oxen, 19 other cattle, 35 sheep, and 20 swine with a value of $1,150. The farm produced 150 pounds of butter, 140 pounds of wool, and 7 gallons of wine, and yielded 100 bushels of

Indian corn, 200 bushels of oats, 18 tons of hay, 10 bushels of other grass seed, and 20 bushels of Irish potatoes.[59]

The 1860 agricultural census indicates that the John D. Dogan and William H. Dogan estates produced a similar variety of agricultural products and livestock as in 1850. Due to subdivision and sale of portions of the Dogan properties, it is unclear what portion of these products were grown within the study area.

It is likely that other land within the study area was leased to unknown tenants that are not readily identifiable from the agricultural census. A summary of the agricultural census produced by Mia Parsons in the 1996 *Cultural Landscape Inventory of the Southern Portion of Manassas National Battlefield Park* indicates that production of the farms improved between 1850 and 1860. The large tracts that had been claimed in the colonial period had been subdivided into smaller parcels, which were typically farmed by their owners or tenants, rather than slave labor. There is a noticeable pattern of crop diversification during this period.[60]

Transportation Routes

Early settlement in inland portions of northern Virginia was directly associated with rivers that provided transportation routes for supplies and agricultural products. As settlement and agricultural production increased, so did the need for reliable routes between products and markets. The Fauquier and Alexandria Turnpike Company was established in 1808 to provide a direct route between Alexandria, Virginia, and Warrenton, Virginia. Construction of the turnpike was completed between Sudley Road and Alexandria by 1815 and it finally reached Warrenton in 1828.[61] The turnpike was laid out on an east-west axis at the very northern edge of the study area.[62]

Throughout its history, the poor condition of the road was a concern of local residents. Charles Ewell wrote the company in 1821, stating, "it is our opinion that the road from Dogins [Dogan's] Hill to Bull run is out of repair Generally & unfitt [sic] for a Turnpike according to Law or the true intent & meaning of the Ac. of Assemble."[63] A series of improvements to the road were made in 1824 and 1825.[64] To help pay for construction of the road, the company placed toll gates every five miles, with one located at the intersection with Sudley Road. Where the road crossed Youngs branch in two locations, the stream was forded by a dip in the road and later a wooden bridge.[65]

THE CIVIL WAR, 1861-1865

On July 16, 1861, Union General Irvin McDowell assembled 35,000 men, the largest field army established to that date in North America, and marched west from Washington, DC. His ultimate goal was to capture the Confederate capital at Richmond, Virginia, and end the newly begun Civil War.

Meanwhile, approximately 22,000 Confederate troops under the command of General Pierre G. T. Beauregard established themselves to protect the important railroad center near Manassas Junction, located six miles south of the study area. The railroad served as a critical lifeline between Washington, D.C. and Richmond for the poorly supplied Confederate army.[66] In anticipation of the Federal advance, Confederate soldiers positioned artillery and dug rifle pits to cover key Bull Run crossing points. Though the steep banks of Bull Run provided excellent defensive positions, the creek's many fords made the stream difficult to protect.[67]

At the time that the Federals had begun their march from Washington, DC, they believed that they would have the advantage in facing a numerically inferior Confederate force under Beauregard at Manassas Junction. However, the slow westward march of the inexperienced Union Army allowed time for Confederate reinforcements under the command of General Joseph E. Johnston to arrive from the Shenandoah Valley to the west via the Manassas Gap Railroad. On the morning of July 21, the Federals faced a relatively equal force of 32,000 Confederate soldiers.[68]

July 21, 1861: First Battle of Manassas

The First Battle of Manassas began on the morning of July 21, 1861. The Union army had planned to cross Bull Run at two points. A smaller diversionary force engaged Confederates at the Stone Bridge on the Warrenton Turnpike, while a larger force crossed Bull Run to the north at Sudley Ford, and then moved south along Sudley Road toward Manassas Junction.[69]

The main Union column was met by Confederate troops on the Matthews farmstead, located to the north of the Stone House near the intersection of Sudley Road and the Warrenton Turnpike. As the Union forces advanced, the smaller Confederate line was soon broken, and they retreated south across Youngs Branch and the Warrenton Turnpike, suffering heavy casualties along the way. The Confederate line reformed on Henry Hill, taking possession of the Robinson and Henry properties (see Figure 2-6).[70]

In the afternoon, Union forces made several failed attempts to advance on Henry Hill. By this time, Confederate reinforcements had arrived, and Union charges only weakened the Confederate line, never breaking it.[71]

Portions of the Union Army utilized Sudley Road to move south from Matthew's Hill to Henry Hill. Colonel Sherman described that the road "was worn deep enough to afford shelter" between Youngs Branch and the Henry Farm road.[72]

In the last phase of the battle, the Union right flank comprised of Colonel Oliver O. Howard's brigade moved to occupy the high ground at Chinn Ridge. Howard's Brigade had brought up the rear of the Federal column, and by the time they reached the front, the Union was faltering against the Confederate line on Henry Hill. They intended to outflank the Confederates, anchoring their attack on the high ground of the ridge (see Figure 2-3).[73] By this time, many men struggled in the mid-afternoon heat. The brigade formed in a hollow under cover of the hill, then climbed the ridge and deployed "in an open field on high ground with the enemy in the woods in their front."[74] Thickets were present on the north side of the ridge, which delayed some regiments in reaching the Union line.[75]

This position was soon broken by two brigades of Confederate reinforcements commanded by Colonel Jubal Early and Colonel Arnold Elzey. The Confederates had moved into the low ground along the Chinn Farm Road and Chinn Branch, obscured by woody vegetation and farm structures, and then charged up the hill, flanking the Federal forces and pushing them northeast, back toward the intersection of Sudley Road and Warrenton Turnpike. Elzey and Early were supported by flanking (enfilade) fire from Lt. Robert Beckham's Newtown Artillery positioned near the Chinn House (see Figure 2-6 and Figure 2-7).[76]

As the Federal right crumbled, Confederates launched a direct offensive, and the Union army made a disorderly retreat toward Sudley Ford and the farm ford, the same routes that they had used to arrive on the battlefield earlier in the day. During their retreat, the inexperienced Federals left behind equipment and artillery, which were commandeered by the victorious Confederates. [77]

Immediately after the battle, the former agricultural fields of Manassas were littered with an abundance of military equipment and artillery as well as dead and wounded soldiers. Any building not damaged by intensive fighting, including the Chinn House, was used as a field hospital.[78]

The First Battle of Manassas cost the victorious Confederacy at least 1,969 casualties (killed, wounded, or missing), while the Union suffered losses of at least

2,896 casualties. However, despite this sound victory, the Confederates were ill-disposed for an offensive after the battle and failed to follow up with an assault to Washington, DC.[79]

Over the winter, Confederate troops camped in the woods near Portici, southeast of the study area.[80] In March, 1862, General George B. McClellan moved his troops by water from Washington, DC, to Fort Monroe, Virginia, less than 100 miles from the Confederate capital. Anticipating this, the Confederates departed Manassas and marched south to counter the Union threat, destroying the Stone Bridge as they evacuated the Manassas/Centreville area. A makeshift timber bridge was constructed in its place, using the original stone abutments.[81]

By early August, the Confederate army under General Robert E. Lee had scored a succession of victories in the Virginia Peninsula, and had succeeded in keeping the Union army out of Richmond. The Union forces were divided. Much of their strength was with George McClellan on the peninsula southeast of Richmond. The remainder was in northern Virginia, under the command of General John Pope's newly formed Army of Virginia, which threatened to disrupt supply lines to Richmond by cutting off the Virginia Central Railroad. Lee intended to strike General Pope's army before McClellan's troops arrived to provide reinforcements, thereby outnumbering the Confederates two to one.[82]

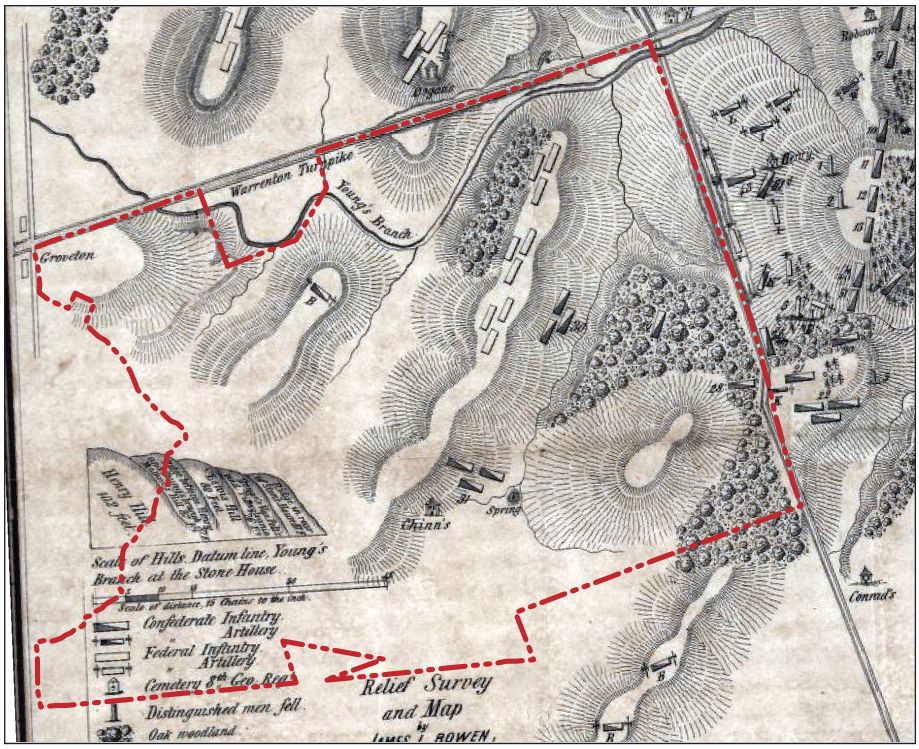


Figure 2-4. Section of topographical Bowen Relief Survey map of July 21, 1861, showing positions of Union and Confederate forces at Chinn Ridge during the First Battle of Manassas (Library of Congress).

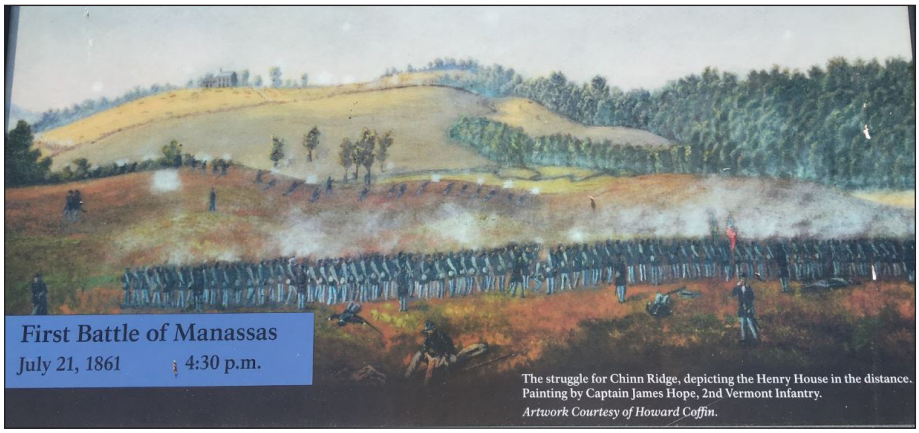


Figure 2-5. First battle of Manassas as depicted on wayside along Chinn Ridge (MANA Archives, Painting by Cpatain James Hope, 2nd Vermont Infantry and courtesy of Howard Coffin).

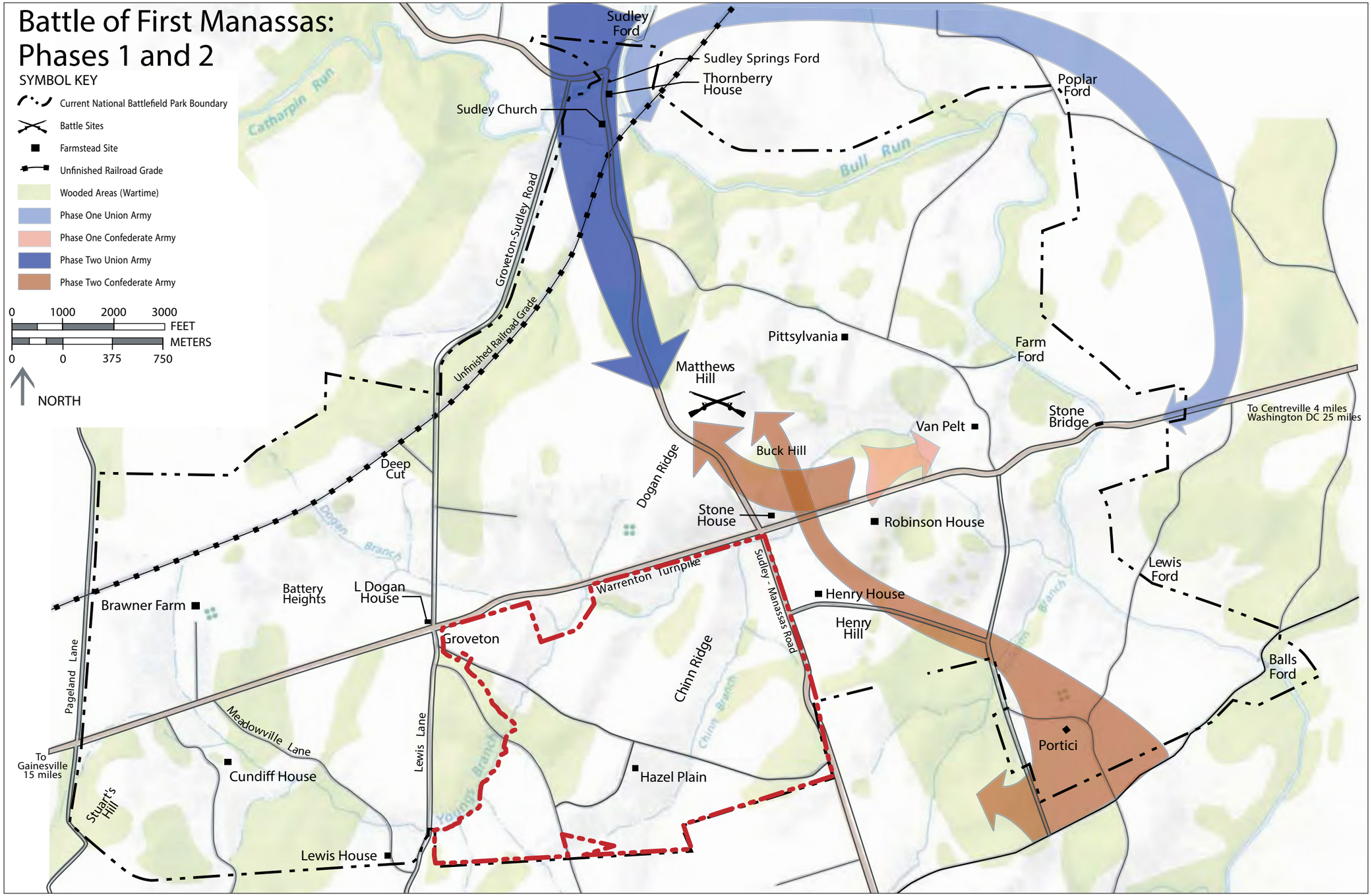


Figure 2-6. Overall battle movements at Battle of First Manassas (Phases 1 and 2) (NPS General Management Plan)

Battle of First Manassas: Phase 3 and Union Retreat

SYMBOL KEY

- Current National Battlefield Park Boundary
- Battle Sites
- Farmstead Site
- Unfinished Railroad Grade
- Wooded Areas (Wartime)
- Union Advance
- Confederate Defense
- Union Retreat

0 1000 2000 3000 FEET

0 0 375 750 METERS

NORTH

Sudley Ford
Sudley Springs Ford
Thornberry House
Sudley Church
Poplar Ford
Catharpin Run
Bull Run
Groveton-Sudley Road
Unfinished Railroad Grade
Pittsylvania
Farm Ford
Matthews Hill
To Centreville 4 miles
Washington DC 25 miles
Stone Bridge
Van Pelt
Buck Hill
Dogan Ridge
Deep Cut
Stone House
Robinson House
Warrenton Turnpike
Sudley - Manassas Road
Lewis Ford
Henry House
Henry Hill
Chinn Ridge
Balls Ford
Portici
Dogan Branch
Battery Heights
L Dogan House
Brawner Farm
Groveton
Pageland Lane
Meadowville Lane
Lewis Lane
To Gainesville 15 miles
Stuart's Hill
Cundiff House
Hazel Plain
Lewis House

Figure 2-7. Overall battle movements at Battle of First Manassas (Phase 3 and Union Retreat) (NPS General Management Plan)

August 28-30, 1862: Second Battle of Manassas

On August 27, 1862, Confederate General "Stonewall" Jackson seized the Union supply depot at Manassas Junction, drawing Union General John Pope back to Manassas.[83]

The battle began as an attack on Pope's troops as they marched along the Warrenton Turnpike past Groveton on the evening of August 28th, 1862. The intense firefight ended after dark in a stalemate, with the Confederates in possession of the Brawner Farm.[84] For the next two days the battle raged over some of the same ground that had witnessed the First Battle of Manassas (see Figure 2-10 and Figure 2-11).

On the second day of the battle, fighting was concentrated along the Unfinished Railroad corridor. Jackson's Confederate troops made use of the topography, positioning his artillery along Stony Ridge and utilizing the unfinished railroad embankment as effective cover. Meanwhile, the Union army was plagued by confusion. Federal forces made a series of uncoordinated attacks, several times breaking the Confederate line, but without adequate support to maintain their advances (see Figure 2-10).[85]

In the early evening of August 29th, Union troops under the command of General John Hatch attempted a pursuit of Confederate forces, and were instead drawn into an intense skirmish just to the east of Groveton with elements of General James Longstreet's wing led by General John Bell Hood, who had been making a reconnaissance-in-force. Union artillery was positioned "on a small hill near Groveton farm" (now where the monument to the 14th Brooklyn is located). A man of the 27th Pennsylvania recalled that "in front was an open field, and the rebels occupied a wood several hundred yards beyond."[86] Other accounts indicate that the field was planted in corn.[87] Artillery for both sides had been positioned on opposing ridges, which offered the best range for their guns.[88] Gerrish's battery may have occupied both sides of the turnpike on the same ridge. The skirmish continued until darkness prevented further operations.[89]

August 30: In the afternoon on the third day of the battle, the Union launched another offensive against Jackson's right flank at "Deep Cut," northeast of the Brawner Farm. Lee was well prepared to repulse this attack, which resulted in a costly firefight.[90]

Confederate reinforcements under the command of General Longstreet had arrived at the battlefield the day before; on the afternoon of August 30, his line of approximately 28,000 men was arrayed from Brawner farm south a mile and a half

Figure 2-8. This wartime sketch by E. Forbes captures the character of the landscape as seen from Henry Hill on the afternoon of August 30, just as Longstreet's line began their advance. Points noted by the author include:

1. Thoroughfare Gap through which Genl. Lee's Army passed.
2. Rebs line of battle
3. The old R.R. embankment behind which the Con. were posted.
4. The old Stone House on the Turnpike used as a hospital.
5. Warrenton Turnpike
6. Bald face hill (Henry Hill).
7. Henry Hill (Buck Hill)
8. Union line of battle.
9. McDowell's corps moving to the left flank to repel Longstreet's attack which had just commenced
10. Sudley Springs road

("The battle of Groveton or Second Bull Run between the Union Army commanded by Genl. Pop and Con. Army under Genl. Robert E. Lee. Sketched from Bald face hill (Henry ill) on Saturday afternoon half past three o'clock...Looking toward the village of Groveton," Forbes, Library of Congress.)

to the Manassas Gap Railroad. Their objective was to press eastward to Henry Hill. Only three Union brigades, led by Colonel Gouverneur K. Warren, Colonel Nathaniel McLean, and Colonel Martin D. Hardin, were in position to oppose Longstreet's forces when the counterattack began. Warren's brigade was situated just southeast of Groveton, and Hardin positioned south of Youngs Branch along the Warrenton Turnpike, while McLean's brigade held Chinn Ridge. Six guns under command of Hazlett were positioned on the hill east of Groveton (see Figure 2-9).[91]

At approximately 4:00 pm, Longstreet's line advanced to the east, led by John Bell Hood's Texas Brigade. Warren's two regiments, the 5th New York (Duryée's Zouaves) and 10th New York (the National Zouaves) were immediately overwhelmed (see Figure 2-9).[92] The 10th New York had been deployed as skirmishers along Lewis Lane (Groveton Road), and were pushed back into the 5th New York's position at the edge of the woods as Hood's men advanced, which unfortunately screened the fire of the 5th New York regiment.[93] In the confusion two New York regiments retreated east to Youngs Branch. In this battle, the 5th New York suffered in largest proportional loss of life of any infantry regiment during the war, losing almost 300 of their 500 men, 120 of them mortally wounded.[94]

Seeing the devastation wrought on Warren's brigade, Hardin's brigade of Pennsylvanians moved into position on the rise west of Chinn Ridge, supported by Captain Kern's four cannon. Hardin's brigade was forced into a precipitous retreat by the 5th Texas, and made a brief stand in the pine thicket on the northwest shoulder of Chinn Ridge before falling back to the rear.[95]

From their position on Chinn Ridge, three of Colonel McLean's regiments could only look on toward Groveton as Warren and Hardin's brigades were cut down in

front of them.[96] Soon, McLean's troops on Chinn Ridge were also unsuccessful in holding off the Confederate advance, which moved to Chinn Ridge from the west, facing off in an intense fire fight with the Federals near the Chinn House. A member of the 73rd Ohio, Pvt. Erskine Carson, described the landscape surrounding his regiment, which was positioned "right upon the crest of the hill, in our rear not a great distance back was a run in the edge of the woods.... On our immediate left and rear was a two story white frame house [Chinn House].... The right of our brigade swept the open field, whilst the extreme left [the 73rd] faced within about 90 or 100 yards a piece of woods." In these woods, running parallel to the regiment's front, "was a deep ravine."[97]

The Federals utilized cover in the landscape to stage a desperate stand against the charging Confederates, followed by successive Union brigades who took up positions on the ridge to stave off disaster. As described by Pvt. Alexander Hunter of the 17th Virginia, on the right of the brigade:

> "On we advanced until we nearly reached a small outbuilding-when suddenly a regiment of the enemy sprang up from behind a wall and let us have a withering volley at point blank pistol range. We were not expecting it, and it came upon us with the suddenness of a thunderbolt. Colonel [Morton] Marye fell, his leg fractured by a bullet, and many were killed by that volley. All discipline now was at an end, and individual bravery fully made up for the deficiency. We all sprang forward with one ringing yell-the officers waving their swords and the men standing still only long enough to fire off their guns. Every man took aim before his finger pressed the trigger-and the ground in our front was literally lined with blue. Still they stood their ground."[98]

While Federal troops attempted to delay the Confederates with this ambush, Union artillery was positioned. Despite a half hour of resistance from the guns, the Federal troops were forced to retreat from Chinn Ridge.

The fight on Chinn Ridge had given the Union enough time to establish a final position of defense along Sudley Road and Henry Hill. The Federal line extended along the length of the Sudley Road from Warrenton Turnpike south past the Chinn farm road. Brig. General Robert Huston Milroy's brigade took up a position along the deeply cut grade of Sudley Road near the woodlot in the southeastern portion of the study area, which he described in a letter to his wife: "I observed the track of the old road a short distance in front of the forest which had been worn ... and was from 3 to 6 feet deep." Once Milroy's regiments were in place, he "ordered them to wait till our men were all out of the woods in front of them and the rebles [sic] appeared."[99] The Federals on Henry Hill withstood repeated Confederate advances, their lines holding for nearly three hours before the defenders retreated to Centreville.[100]

The Union army suffered one of the worst defeats of the war, with approximately 1,700 dead and 8,200 wounded out of the 62,000 Federals who fought at Second Manassas. The Confederates lost about 1,300 dead and 7,000 wounded out of their smaller force of 50,000. The victory began Lee's invasion of the north in his 1862 Maryland campaign; however, he had failed to completely cripple Pope's Army of Virginia as intended.[101]

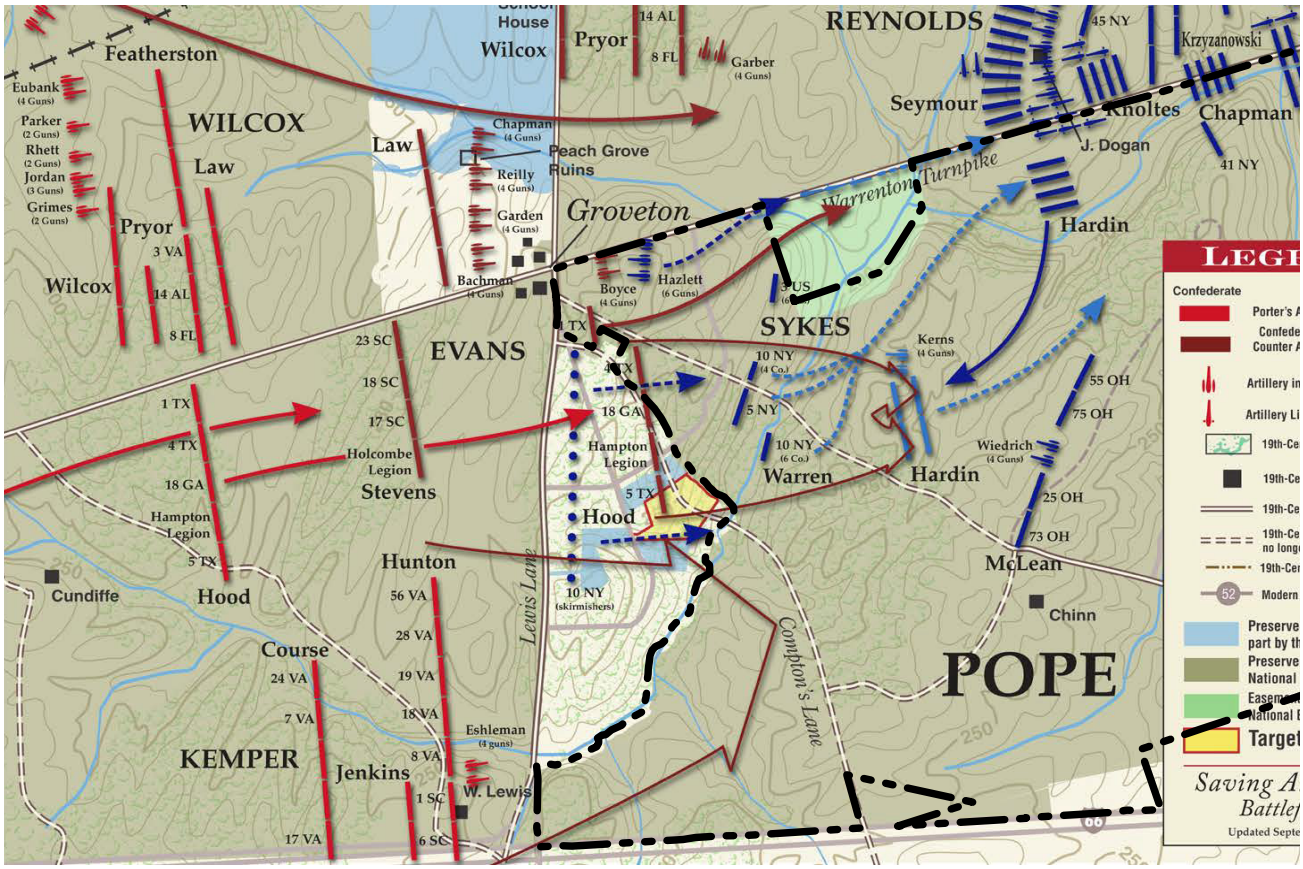


Figure 2-9. Excerpt of map of Longstreet's Assault, 3:45 to 4:30 pm on August 30, 1862, showing battle movements at Groveton and Chinn Ridge (American Battlefields Trust). The study area is represented by a dashed black line.

Battle of Second Manassas: Phases 1 and 2

SYMBOL KEY

- Current National Battlefield Park Boundary
- Battle Sites
- Farmstead Site
- Unfinished Railroad Grade
- Wooded Areas (Wartime)
- Phase One Union Army
- Phase One Confederate Army
- Phase Two Union Army
- Phase Two Confederate Army

0 1000 2000 3000 FEET
0 0 375 750 METERS

NORTH

Sudley Ford
Sudley Springs Ford
Thornberry House
Poplar Ford
Sudley Church
Catharpin Run
Bull Run
Groveton-Sudley Road
Pittsylvania
Farm Ford
Matthews Hill
Stone Bridge
To Centreville 4 miles
Washington DC 25 miles
Van Pelt
Buck Hill
Dogan Ridge
Deep Cut
Unfinished Railroad Grade
Stone House
Robinson House
Dogan Branch
Warrenton Turnpike
Sudley - Manassas Road
Lewis Ford
Brawner Farm
Battery Heights
L Dogan House
Henry House
Henry Hill
Groveton
Chinn Ridge
Chinn Branch
Holkums Branch
Balls Ford
Pageland Lane
Meadowville Lane
Lewis Lane
Portici
To Gainesville 15 miles
Stuart's Hill
Cundiff House
Hazel Plain
Young's Branch
Lewis House

Figure 2-10. Overall battle movements at Battle of Second Manassas (NPS GMP)

Figure A-4

Battle of Second Manassas: Phase 3 and Union Retreat

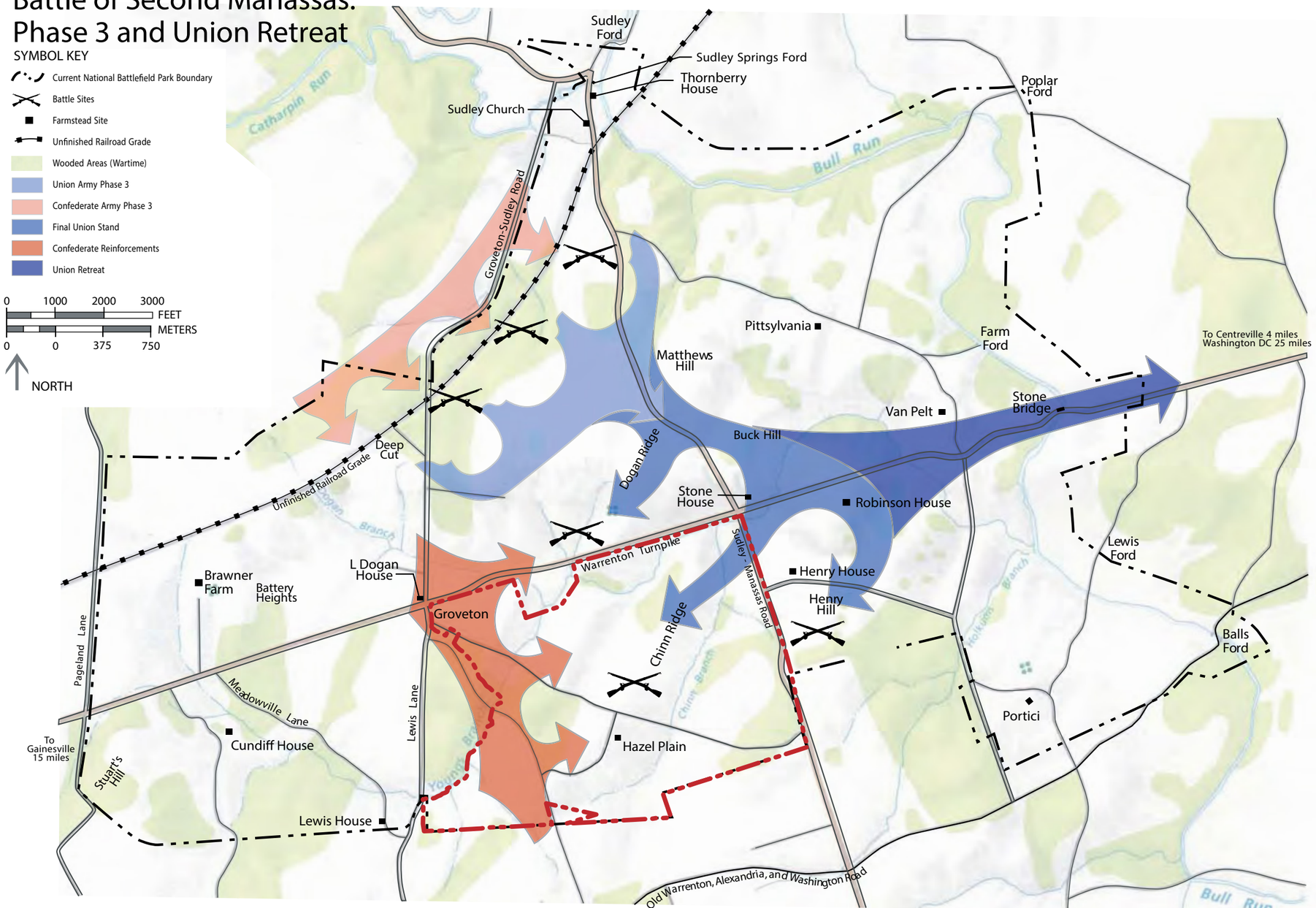


Figure 2-11. Overall battle movements at Battle of Second Manassas (NPS GMP)

Battlefield Maps

A number of maps were produced following the two battles to document the landscape structures, roads, and movements of the two armies. The maps vary in graphic style, accuracy, and level of detail. Preparation of the 1861-1865 historic period plan (HP-2) utilized a combination of battle maps including the 1861 Atkinson map, the 1878 Warren map, and the 1862 Hotchkiss map, as well as battle accounts described in the previous sections.

The 1862 Atkinson map documents landscape condition following the Battle of First Manassas (see Figure 2-12). This map provides highly detailed notes related to vegetation and individual buildings present on both Chinn Ridge and the Dogan farm (New York Monuments Area). Given this high level of detail, the Atkinson map forms the general basis for vegetation on drawing HP-2.[102]

The Warren map provides additional information on buildings and structures, vegetation, streams, circulation routes, and small scale features such as fencing within the study area. The image presented in Figure 2-13 is a composite of notes from the Warren sketchbooks, which documented detailed landscape conditions in June 1878 by G. K. Warren, who was also present at the battle. Warren surveyed and prepared the maps to compare 1878 conditions to the 1862 landscape, because the army deemed existing maps of the battlefield to be inadequate for the purpose of rehearing the case of Fitz John Porter. These maps are considered to be among the most accurate in depicting conditions present following the Second Battle of Manassas.[103]

A 1995 analysis of the accuracy of First and Second Manassas battle maps was produced by comparing several maps to 1995 landscape conditions. This assessment identifies the Jed Hotchkiss sketch map of the actions at Second Manassas as the most accurate illustration of the Groveton area (see Figure 2-14).[104]

The 1995 map analysis also considers the 1877 *Map of the battlefield of Bull Run*, which includes detailed woodland areas, field edges, fencelines, and structures throughout the entire study area (see Figure 2-15). The map was compiled from a map accompanying the report of Brig. Gen. McDowell and a map made under the direction of Gen. Beauregard reflecting the actions at First Manassas. This map contains several discrepancies with other drawings, including the absence of the Chinn House. Two of the streams located on this map were not identified through field reconnaissance in 2017, and may have been intermittent drainages.[105]

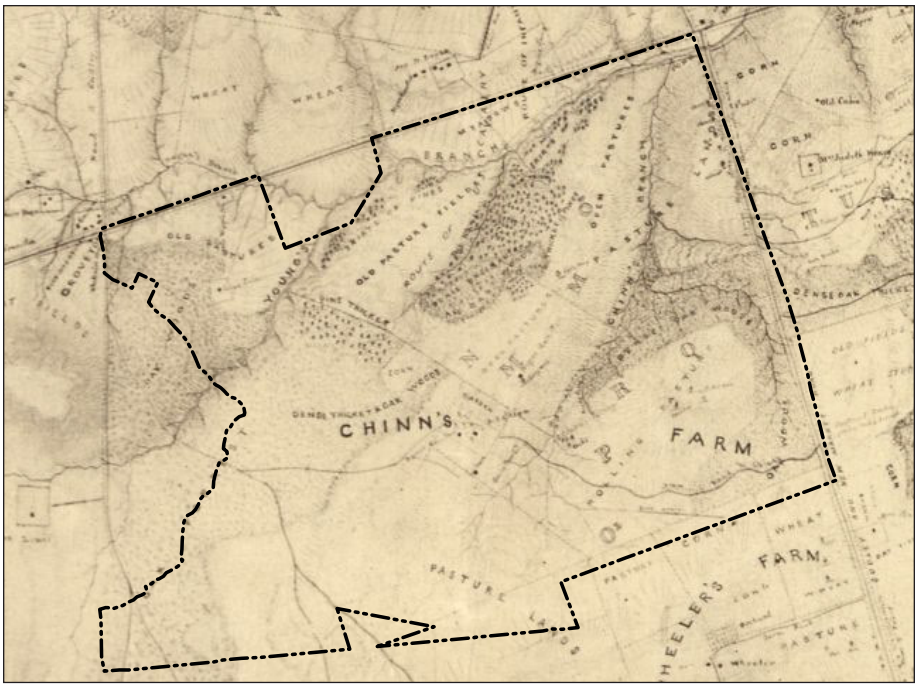


Figure 2-12. Excerpt of 1861 Atkinson Map (Library of Congress). Study area boundary added by QEA, 2018.

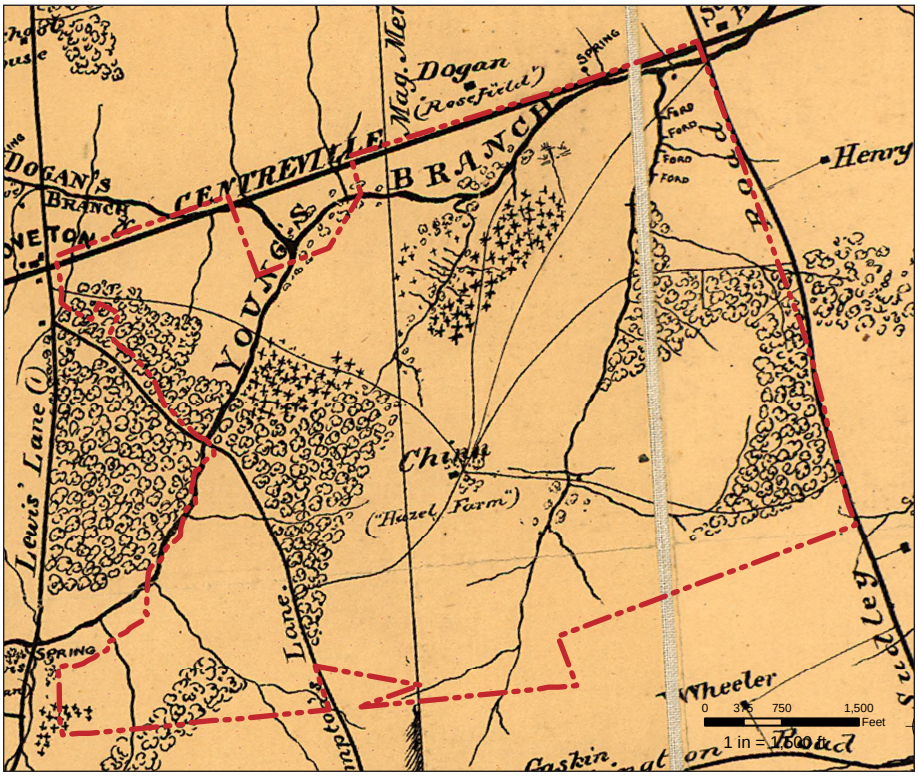


Figure 2-13. Excerpt of 1878 Warren map (Library of Congress). Study area boundary added by QEA, 2018.

Figure 2-14. Excerpt of Hotchkiss map of Groveton area, following Second Manassas, 1862 (Library of Congress). The Hotchkiss map identifies the Chinn House as well as two structures along Warrenton Turnpike near Groveton. Study area boundary added by QEA, 2018.

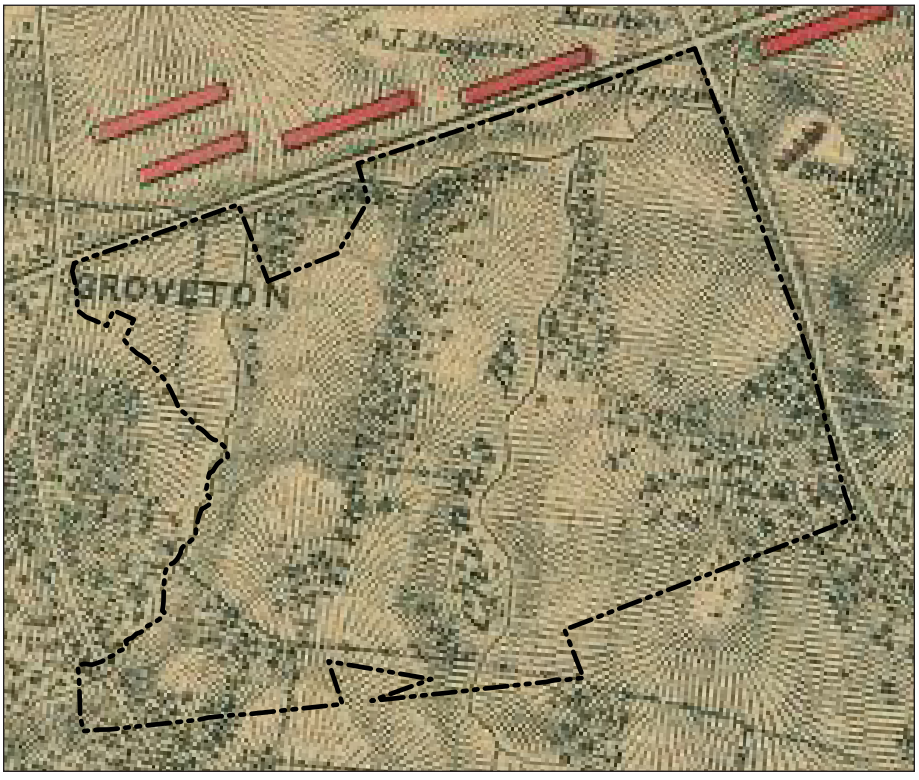


Figure 2-15. Excerpt of 1877 Map of the battlefield of Bull Run (Library of Congress). Study area boundary added by QEA, 2018.

Landscape Condition

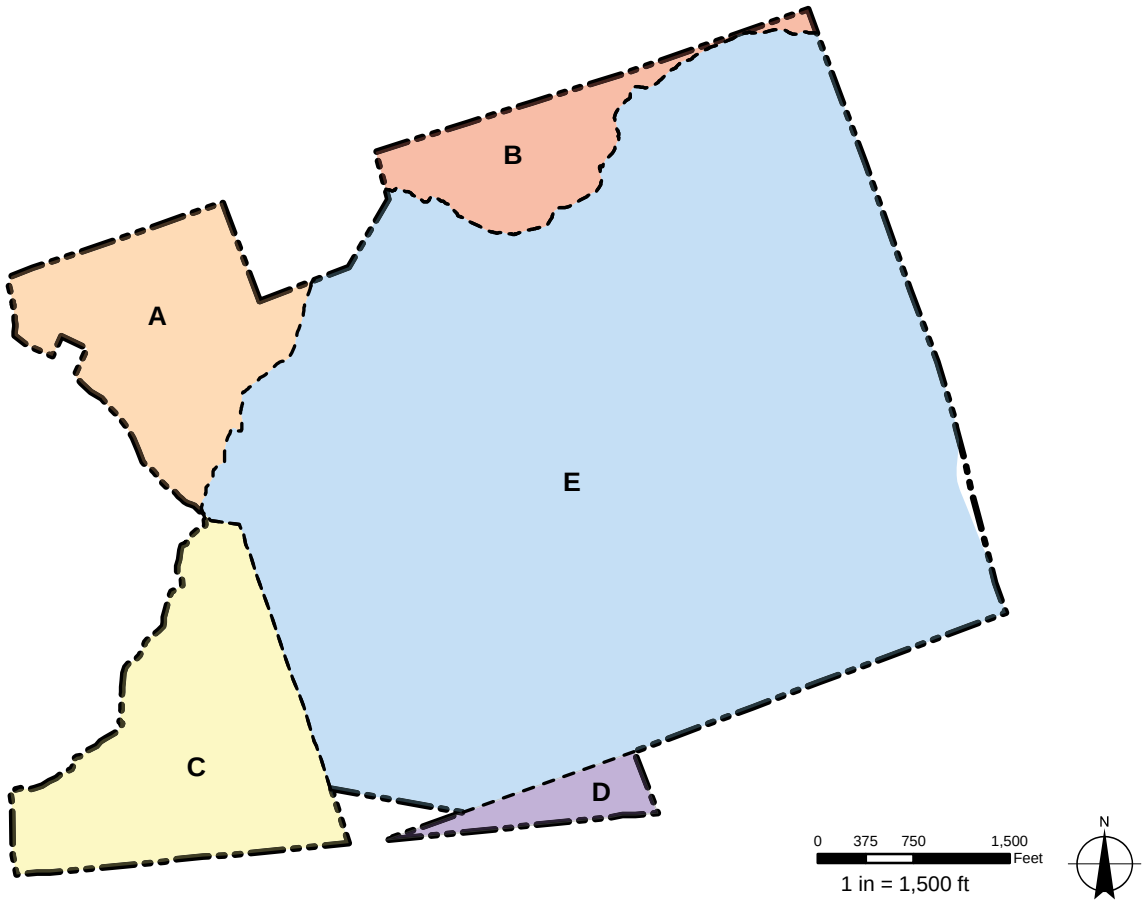
The Historic Period Plan for 1861 to 1865 (HP-2) illustrates landscape conditions present during this period. At the start of the Civil War, the region around the study area was occupied by prosperous farms. Each farmstead contained a variety of buildings, typically including a residence, barns, privies, ice houses, stables, storage buildings, slave quarters, kitchens, and other necessary outbuildings. Fields occupied flat and gently rolling terrain, while woodlots occupied areas of steep slopes and stream corridors. Fences were located along the edges of roads and property lines, as well as internally to subdivide the large estates into defined fields. The landscape was dotted with small communities, including the crossroads at Groveton where a tavern, blacksmith shop, store and several homes were present.[106] Property ownership during this period is indicated on Figure 2-16.

The Atkinson (1861) and Hotchkiss (1862) battlefield maps identify at least one structure on the Dogan farm, north of Youngs Branch and near the Groveton crossroads. Both maps also identify a second structure in differing locations, either along the turnpike or on the ridge now occupied by the 5th and 10th New York Monuments. Property records identify the Wigginton House on this property, which at the time was owned by Medora Dogan, daughter of William H. Dogan, and other heirs.[107] However, a structure was not identified in this vicinity in battle accounts, and it is possible that the Wigginton House was no longer present by Second Manassas.

The 1861 Atkinson map identifies pasture land in the northern portion of the study area near the intersection.[108] Battle descriptions also suggest that portions of the property may have been planted in corn.[109] South of the pasture was an oak woodlot, which is most likely the 50-acre woodlot belonging to Lucinda Dogan.[110]

At the time of the battles, the Chinn Farm was a patchwork of oak forest, thickets, and open pasture or crop land. The greatest proportion of the farm was open pasture lands; other open areas have been documented as rolling pasture and old pasture fields. The Atkinson map notes a fenced 'garden' near the Chinn Farm and a 'corn' field west of the house.'[111] A battle account from the 73rd Ohio also identifies a crop field or garden in this area, noting that the 73rd Ohio held its position on the left of the brigade, facing west, "it's left touching the corner of a cultivated lot in which was [the Chinn House]."[112]

Figure 2-16. Study area property ownership, 1861-1865.



Legend

- Historic Property Line
- Chinn Ridge CLR Study Area Boundary
- **A** Owned by the Dogan family including: Medora Dogan (1854-1896), Catherine Dogan (1854-1875), Anna Dogan (1854-1875), Lucinda Dogan (1854-1908)
- **B** J Dogan (1853-1875)
- **C** Alexander H. Compton
- **D** Wheeler
- **E** Benjamin Chinn (1853-1870)

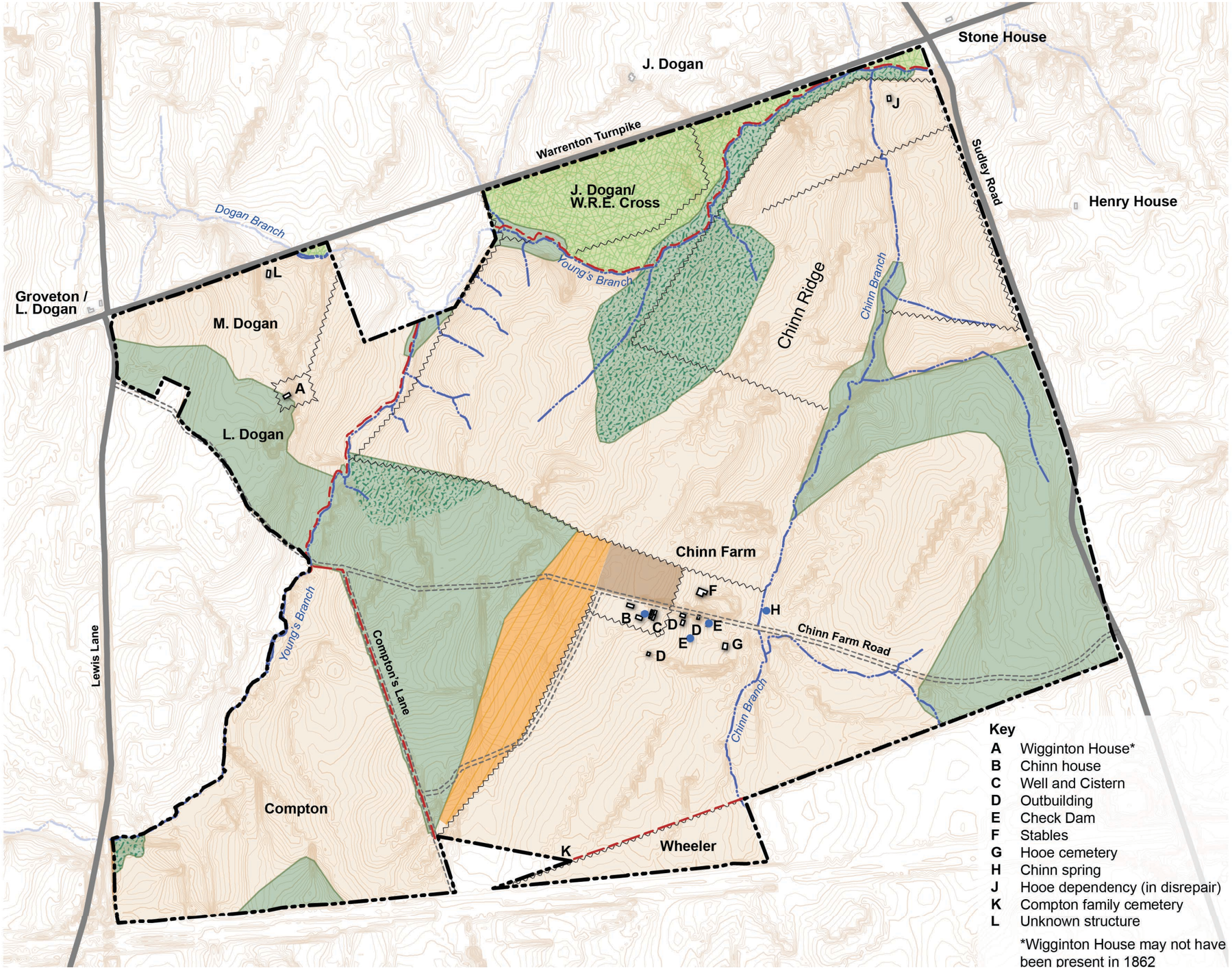
Buildings at the Chinn Farm core included the mansion, stables, Hooe Cemetery, and at least one outbuilding.[113] Advertisements for the property after the war indicate the presence of the mansion, a log house, a stone stable, and a log corn house and granary.[114] Battle maps also identify Chinn Spring near the intersection of the Chinn Farm road and Chinn Branch.[115] Farm roads radiated from the Chinn House to Groveton, Sudley Road, and Compton Lane, which ran along the western edge of the farm.[116]

The landscape played a critical role in military actions and outcomes of both the First and Second Battles of Manassas. Ridges and hills, particularly Chinn Ridge and the hill southeast of Groveton, were key terrain that provided observation points and maximized range for rifles and large artillery positioned on high points. The distinctive series of ridges running northeast-southwest within the study area are clearly documented in numerous battle maps. At the time of the battles, views were open between Chinn Ridge and Henry Hill, the Stone House, and Groveton. Existing roads, including the Warrenton Turnpike, Sudley Road, and the Chinn Farm road, served as critical avenues of advancement and retreat.[117]

Within the study area, one of the most important aspects of the landscape was the availability of cover and concealment. To obscure the location and number of their forces, both Federals and Confederates made use of wooded areas and sheltered topography. Even smaller features such as structures and fences also served as cover and concealment on the battlefield.[118]

The landscape was intensely impacted by military actions both during and after the First and Second Battles of Manassas. Property was damaged during the battles, and the fields were littered with artillery, equipment, and the remains of dead and wounded soldiers and horses. Many casualties were buried where they fell in hastily dug shallow graves.[119]

Following the Second Battle of Manassas, the environs were occupied by Confederate troops. Officers utilized standing structures, while soldiers camped in the surrounding land. The occupying troops raided stored crops, stripped woodlands, and damaged fields to the point of limiting future cultivation.[120] War claims document major damages incurred at the Dogan property, including the loss of corn, potatoes, timber, and fences.[121] As Benjamin Chinn was not present at the Chinn Farm during or after the battles, records of specific impacts to the property are not known.



Key

A	Wigginton House*
B	Chinn house
C	Well and Cistern
D	Outbuilding
E	Check Dam
F	Stables
G	Hooe cemetery
H	Chinn spring
J	Hooe dependency (in disrepair)
K	Compton family cemetery
L	Unknown structure

*Wigginton House may not have been present in 1862

Chinn Ridge Cultural Landscape Report
Manassas National Battlefield Park

1861-1865
Historic Period Plan

Legend

- Chinn Ridge CLR Study Area
- Historic property boundary
- Building or structure (approximate location)
- Main road
- Farm road
- Stream
- Evergreen forest
- Mixed forest
- Pasture
- Meadow
- Crop Field
- Garden
- Fence (all types)
- Constructed water feature
- 10-foot contour (2018)
- 2-foot contour (2018)

Notes and Sources

1. Atkinson, 1861 and Warren, 1878: fencelines, streams, buildings and structures, roads, property boundaries
2. MANA GIS Archives: topography, streams, roads
3. Parsons 1996 CLI: property boundaries, fencelines
4. Vegetation developed through comparative analysis between vegetation documented on Atkinson, 1861; Warren, 1878; aerial photograph, 1937; MANA Vegetation survey, 2011; and aerial photograph, 2017. Historic documentation of forests on the 1861 and 1878 surveys was confirmed through the 1937 aerial photograph, 2017 aerial photograph, and 2011 MANA vegetation survey, which clearly delineate successional forests and mature oak-hickory forests in consistent locations.

0 400 800 1,600 Feet

1 in = 800 ft

N

NPS No. MANA 379 137862

HP-2

QUINN EVANS ARCHITECTS

National Park Service
National Capital Region

The Chinn House may have been empty at the time of the battles. Benjamin Tasker Chinn's whereabouts during the war are not documented but it is likely he and his wife stayed with one of their daughters. They may have lived with their younger daughter Sallie Sophia, while her husband, Robert H. Tyler served with the Evergreen Guards, Company C, 8th Virginia Infantry. It is known that Chinn spent his later years at the Tyler home, known as The Shelter, in western Prince William County. Benjamin and Edmonia Chinn may also have moved to the Chinn family home, Edge Hill, in Richmond County, Virginia, just before or during the war.[122]

J.T. Trowbridge provided a description of the battlefield landscape when he toured Manassas in 1865:

> "The original country roads had passed into disuse; and, the fences being destroyed, only the curious parallel lines of straggling bushes and trees that grew beside them remained to mark their courses. Necessity and convenience had struck out new roads winding at will over the fenceless farms. We crossed thinly wooded barrens, skirted old orchards, and passed now and then a standing chimney that marked the site of some ruined homestead... I remember not more than three or four inhabited houses on our route."

> "In its external features I found it greatly changed. Many of the trees had been cut away. Every fence had disappeared. Where had waved the fields of grass and grain, extended one vast, neglected, barren tract of country."[123]

Other reports around this time indicate signs of recovery and improvements at Manassas. In the same year, the Washington, DC *Evening Star* reported the condition of the landscape along the Warrenton Turnpike en route to the Groveton monument:

> "The roads are characterized by all the horrors of a barbaric period. The pike is paved with boulders from which the sand and gravel have been washed away, stretches on, an interminable highway of suffering, while the by-ways filled with stumps and pit-holes, afford scarcely less terror to the traveller [sic]."

> "The vicinity of Bull Run would scarcely be recognized as a battlefield. Four years have obliterated nearly all the marks of the struggle and the relic hunter only now and then finds in the grass a memento of the event. Very few shot and shell remains upon the surface, the trees are hiding the blotches on their trunks made by bullets, and the only bones that are found, with few exceptions, are those of horses... Some fences have been rebuilt, and corn is planted in many places, while the rapidly growing bushes hide nearly all the original features of the field."[124]

RECOVERY, 1866-1905

The Manassas community suffered greatly in the aftermath of the war. Local residents lost houses, crops, woodlots, livestock, fences, and the lives of many soldiers and one civilian.[125] Many Virginia farms were in a ruined condition, and in many cases crops had not been raised for years or had been repeatedly destroyed. Tours of Civil War battlefields began soon after the battles had ended. The scars of war were evident on the landscape through ruined homesteads, fenceless farms, and decimated woodlands. The local community struggled to restore its economy to what it was before the Civil War. Agriculture and animal husbandry remained important activities on the landscape during this period.[126]

One method of recovering financial losses incurred from the battles was to submit war claims to the federal government. Though no war claims were submitted for the Chinn Farm property, a claim was submitted by Lucinda Dogan for the adjacent Groveton property; it is unclear if this claim was in reference to the 50-acre woodlot south of the Warrenton Turnpike. A statement from Andrew Redman, a blacksmith and ex-slave, in support of the Lucinda Dogan claim acknowledged that wood was being used by Federal troops after the Second Battle of Manassas:

> "I saw a Regiment of cavalry camped in claimants woods for a month or more and while there I heard chopping in their camp and I saw the wood disappear from day to day and I believe they cut it - but did not see them do it. I lived on the south edge of the woods and they were on the north side. This was the winter of 1862 or spring of 1863. They cut several acres of good timber."[127]

Redman also indicated that both armies burned fence rails when they passed through the area. As troops camped along Warrenton Turnpike during the Second Battle of Manassas and after, this action likely affected both plantations. Another deposition by John F. Dogan specified that both sides of the intersection at Groveton had been fenced prior to destruction by the troops:

> "The farm contained about 700 acres and was more than half of it enclosed with a rail fence of oak rails... The farm was divided into 8 or 9 fields and there was[sic] two roads passing through it at right angles which were fenced on each side"[128]

At the Peach Grove estate in the northwest corner of the study area, the family continued to use the land for crops, livestock, pasture, and woodlots (see Figure 2-18). Similarly, the Rosefield property along the northern border of the study area was used for agricultural purposes.

Lucinda Dogan is noted as the primary owner of the 550-acre Peach Grove estate on the 1870 Agricultural Census. Although most of this farm was located outside of the study area, the diverse mix of agricultural products and livestock can shed some light on the land use within the northwestern portion of the study area. Lucinda Dogan grew a variety of crops including wheat, corn, oats, potatoes, and hay. She kept horses, mules, beef and milk cows, sheep, and swine, and produced butter, wool, and slaughtered animal products.[129]

By 1880, the Peach Grove estate was divided between Lucinda Dogan, Mary Jane Dogan, and another family member. Lucinda Dogan's property included the 50 acre woodlot located within the study area, from which 25 cords of wood were produced.[130]

Meanwhile, the historical record is scant for the post-war years of the Chinn Ridge property. The 2017 *Chinn Ridge Cultural Landscape Inventory* revealed that although Benjamin T. Chinn was listed as a property owner on the 1870 Prince William County Agricultural Census, the enumeration columns are blank. The property as likely tenant leased during this period.[131] Trustee William H. Fitzhugh offered the property at a trustees sale on November 29th, 1871, October 17th, 1874, and again on March 25th, 1875. In each of the successive announcements, Hazel Plain is referred to as the "famous Chinn House."[132] The property was sold several times in this period, and eventually was purchased by the Cather family.[133]

According to an 1871 description of the property, over three quarters of the Chinn Farm was arable, the rest being wooded. Improvements included a mansion with 8 large rooms (in need of repairs to make habitable), a small but comfortable log house, possibly near the Stone House intersection, occupied by the then-present tenant, a stone stable, and a log corn house and granary. It was described as being located in a desirable and healthy section of Prince William County, near churches, schools, mills, and markets. The soil was a red/chocolate color and was easily cultivated, well irrigated, and easily improved. A Mr. Burnitz was residing on the farm at the time.[134]

An assessment of the landscape presented in the 2017 *Chinn Ridge Cultural Landscape Inventory* notes modifications to the plantation's buildings during this period:

> During a 1981 archeological survey, Thomas McGarry discovered what he interpreted to be a carriage house, an ordered set of outbuildings near the main house with several possible functions, stables, a root cellar, ice house, two check dams and an unexplained, large, square foundation. Further study is required to determine if one of the "unexplained" features McGarry describes

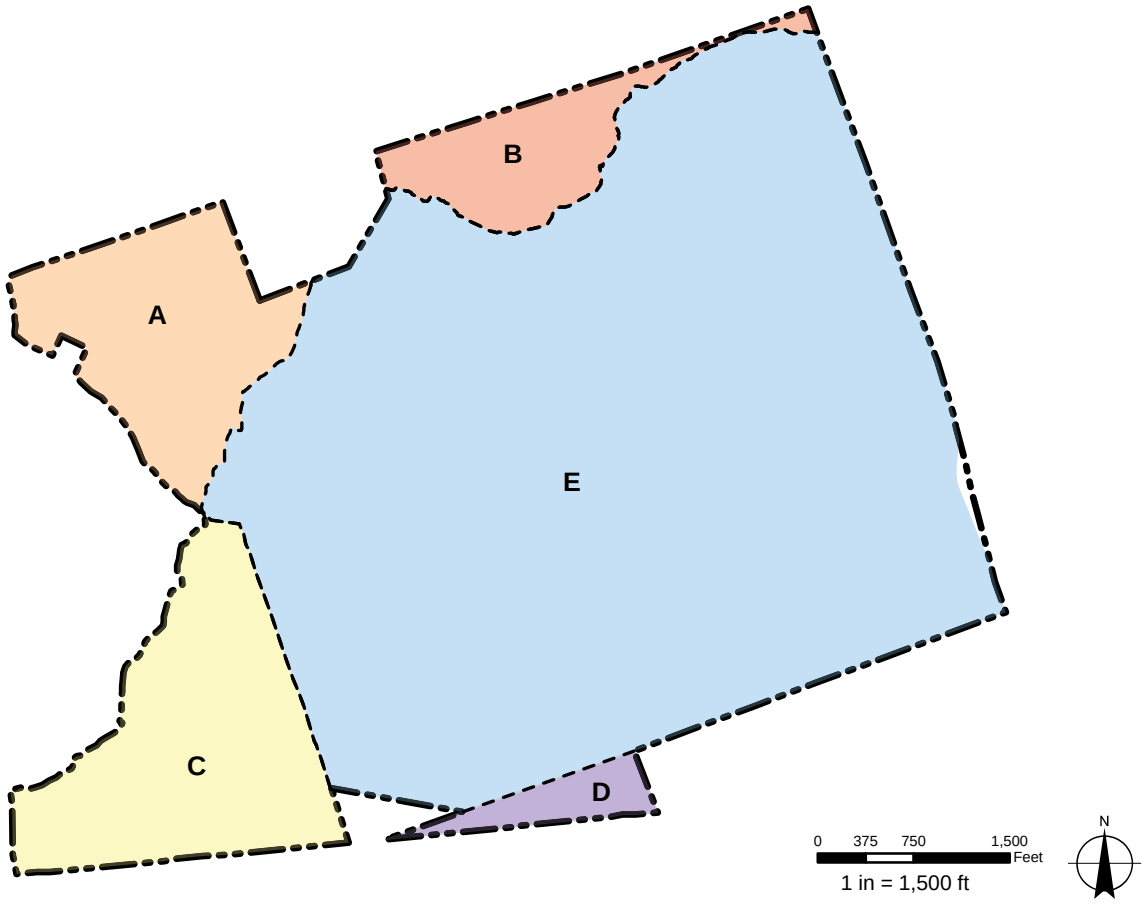
on the Chinn Farm might be the log house, corn house or granary mentioned in the advertisements. The advertisements do not mention the ordered set of outbuildings near the main house or the carriage house, and early photos of the main house do not show any outbuildings. This suggests that by the end of the Civil War, the particular ordered set of outbuildings and the carriage house were already gone.[135]

The 1870 and 1880 Agricultural Census records for the Chinn Farm property have not been located. It is possible that the land lay barren for a period following the Civil War, or it may have been leased to unknown tenants. A summary of the 1870 Agricultural census within the vicinity by Mia Parsons indicates that it became common for land owners to rent their properties for others to cultivate during this decade; crop diversification also continued.[136] The typical farmer worked a small amount of land, manageable by the family and a few hired laborers. Animal husbandry increased dramatically during this period, including dairy and poultry farms, but it was "rarely pursued at the expense of production of grain or food for home consumption."[137] Orchards were replanted following the Civil War, and by the 1880s peaches and apples had become important cash crops.[138]

Mrs. Q.L. Sanford sold the Chinn Farm property to Andrew Cather in 1883. Cather financed the purchase through an instrument called a Deed of Trust (mortgage) from E. E. Meredith for two years. Andrew Cather was a Clergyman from Ireland who married wife Emma from Massachusetts. At the time of the purchase, Andrew was 50 years old with four sons and four daughters.[139] Considered Northerners, the Cathers continued diversified farming and raised livestock in a slave-free society. Cather's heirs continued to occupy the property for the next 50 years.[140]

Figure 2-17. Early photograph of the Chinn House showing trees in the immediate vicinity of the structure and a wire fence in the foreground. The photograph is dated ca. 1870s, however the wire fence may indicate a later time period. The precise date of the photograph is unknown (MANA Archives)

Figure 2-18. Study area property ownership, 1866-1904.



Legend

Historic Property Line

Chinn Ridge CLR Study Area Boundary

A Portions of the property were passed through the Dogan family including: Medora Dogan (1854-1896), Catherine Dogan (1854-1875), Anna Dogan (1854-1875), William Dogan ð . (1875-1899), Mary å ne Dogan, ð hn F. Dogan (1899-), Henrie Dogan (1899- Woodlot: Lucinda Dogan and children (1854-1910)

B ð hn Dogan (1843 or 1845-1875
Ann M. Dogan (1875-1879)
Estate of D.F. Hooe (1879-1882)
ð hn Cross (1882-1890)
W.R.E. Cross (1890-)

C Alexander H. Compton (until 1916)

D Abe and Martha Davis (acquired 1880s, requires verification)

E Benjamin Chinn (1853-1870)
Robert Tyler (1870-1872)
Mrs. Quincy Sandford (1872-1883)
Andrew Cather and heirs including Anna Cather, Cordelia Cather Swart and Hamilton Swart (1883-1936)

John Dogan continued to live and farm Rosefield until his death in 1875. His wife, Ann, continued to live at the 114-acre Rosefield property with niece Mary Jane Dogan.[141] Ann Dogan remained the owner of the property until her death in 1879. At this time, the Rosefield property was purchased by the estate of D. F. Hooe.[142]

The Rosefield property was purchased by John Cross in 1882 when he paid $2000 for the "land lying near Groveton known as the John D. Dogan tract."[143] The deed was released in 1886 with an additional $1500 payment from Cross.[144] John Cross passed away in 1890. Son W.R.E. Cross received the portion of property that had been the site of the house at Rosefield, and included property in the study area on the north side of Youngs Branch.[145] Near the end of the period, a house identified as "Guthrie" is identified in the northwest corner of the study area.[146] Note that the Guthrie house is not at the site of the former Rosefield.

The property in the southwest corner of the study area is identified as the Compton farm on numerous battlefield maps. During this period, the property was owned by Alexander H. Compton, a veteran of the Confederate 8th Virginia regiment, and was maintained by his family as farmland until his death in 1916 (see "C" on Figure 2-18).[147]

Additional research is needed to determine the ownership of the parcel along the south side of the study area during this period, identified at "D" on Figure 2-18. The parcel is associated with Abe and Martha Davis, an African American family who likely acquired the property in the 1880s. A small family cemetery, known as the Davis Family Cemetery, is located adjacent to this parcel.[148]

In 1904, the US Army conducted peacetime maneuvers on sixty-five thousand acres of sparsely populated farmland in Manassas extending from Bull Run to Thoroughfare Gap. Following the Spanish-American War, poor leadership and training during the mobilization period was recognized as a major operational problem; to combat this flaw, the War Department began biennial maneuvers designed to simulate battle conditions. The large-scale practicing and drills conducted at Manassas were one of the first such peacetime maneuvers, involving approximately 5,000 regular troops and 21,000 National Guardsmen (also referred to as militiamen) set up in base camps about 15 miles apart. The maneuvers utilized the scenario of the Second Battle of Manassas to practice not only logistics and battle movements, but also courts martial, real property issues, money, and all other concerns that would affect an actual battle.[149] Following army maneuvers, the predominantly agrarian landscape was documented though a map and a series of photographs (see Figure 2-19 through Figure 2-23).

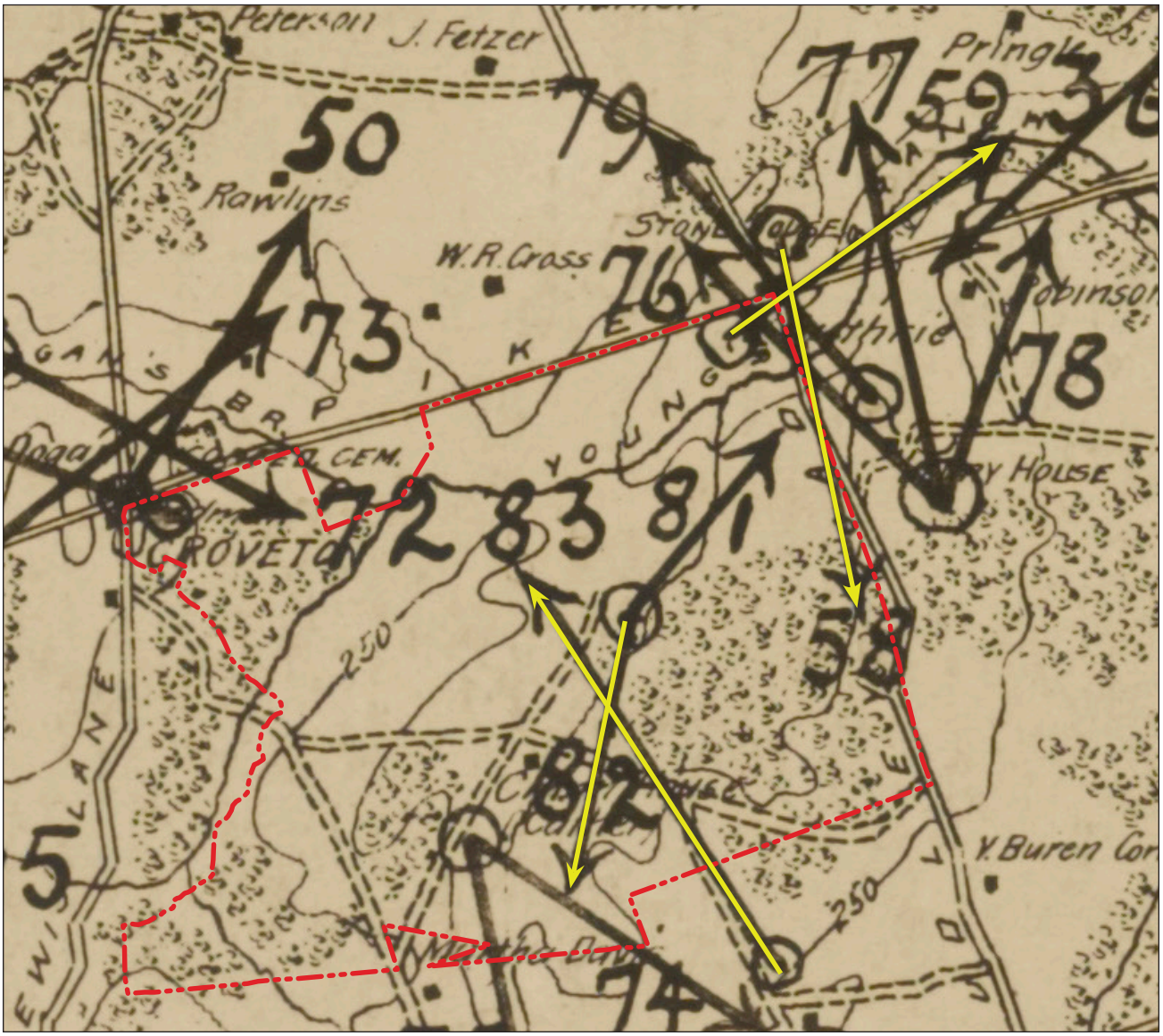


Figure 2-19. Map produced for 1904 Army maneuvers show vegetation and circulation patterns relatively consistent with the 1878 Warren map (Prince William County RELIC Online). Study area boundary (red) and highlighted views (yellow) added by QEA, 2018.

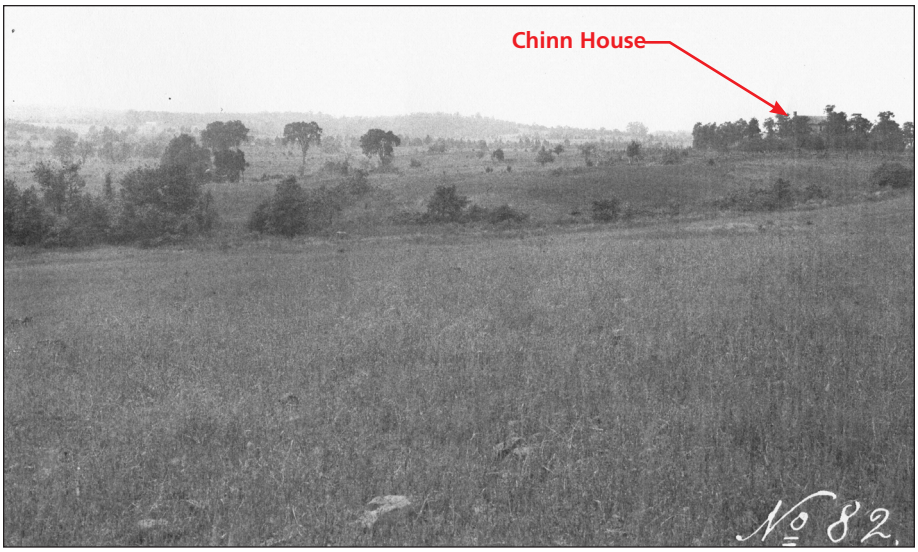


Figure 2-20. View from crest of Chinn Ridge southwest, 1904 (view 82). The Chinn House, at this time owned by the Cather family, is visible on the right side of the photo (Prince William County RELIC Online)

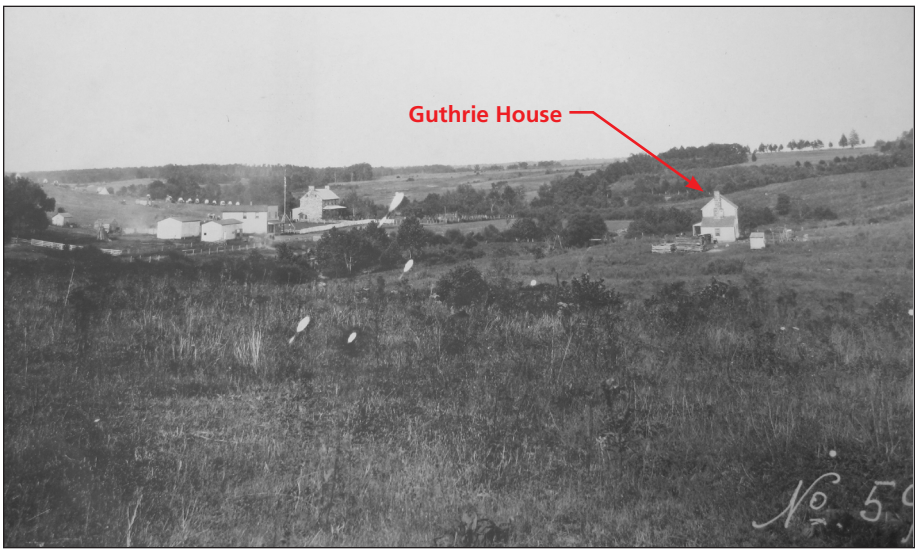


Figure 2-21. View from eastern end of Chinn Ridge toward Warrenton Turnpike/Sudley Road intersection and Stone House, 1904 (view 59). At this time, the Guthrie house was present on the north end of Chinn Ridge (Prince William County RELIC Online)

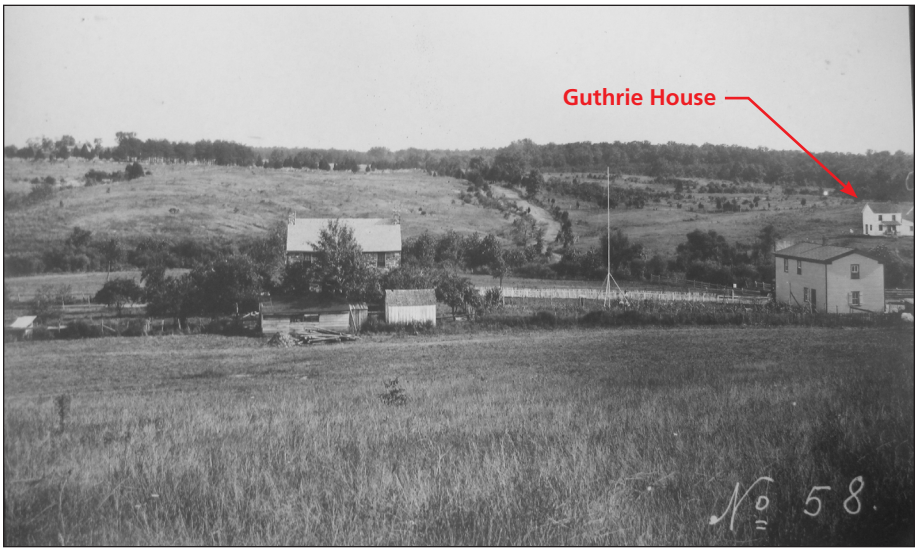


Figure 2-22. View from Matthews Hill (Ayer's Farm) south along Sudley Road 1904 (view 58). The Guthrie house at the east end of Chinn Ridge is visible on the right side of this image. By this time, successional vegetation has expanded to the crest of Chinn Ridge, blocking views to the Chinn House (Prince William County RELIC Online)

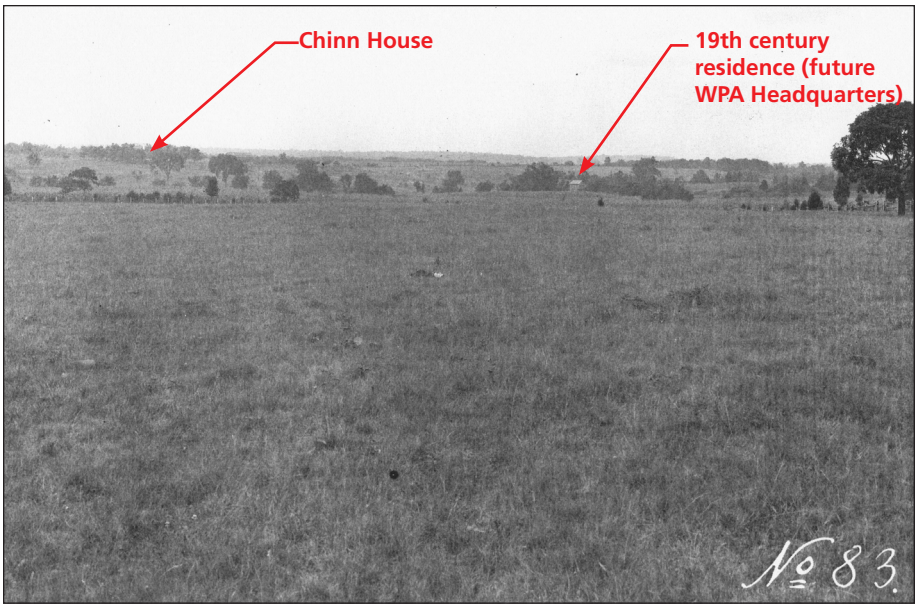


Figure 2-23. View from Wheeler Farm (south of the study area) north toward Chinn Ridge, 1904 (view 83). The house in the center right of the image is the WPA headquarters. The Chinn House is located in a clump of trees on the far left (Prince William County RELIC Online).

COMMEMORATION AND MEMORIALIZATION, 1905-1940

Beginning in the 1890s, efforts to commemorate Civil War battle sites expanded from establishing memorials to preserving battlefields. National military parks were instituted at Chickamauga and Chattanooga and Antietam in 1890, followed by Shiloh, Gettysburg, and Vicksburg before the turn of the century. Advocates began to seek federal support to create a military park to preserve the Manassas Battlefields, spearheaded by Union veteran George Carr Round and supported by local residents, Civil War veterans, and Virginia representatives. Their efforts to build congressional support were unsuccessful, most likely because Manassas was associated with two definitive Confederate victories. Nevertheless, commemoration efforts continued at Manassas.[150]

The first monument erected in the study area was the now- missing 7th Georgia marker placed on July 21, 1905 by surviving veterans during their reunion on the battlefield.[151] A newspaper account at the time asserted that the regiment's marker for Second Manassas "will indicate the spot where the noble hearted and brave Col. W. T. Wilson was killed and numbers of others of his regiment killed and wounded."[152] According to former Superintendent Joseph Mills Hanson's book *Bull Run Remembers,* the marker was located north of the present day Maintenance access road, west of Sudley Road. It was originally part of a set of six other markers, which located the positions of the 7th Georgia on the battlefield. The remaining two markers, which are located near Henry Hill to the east, consist of erect 10-inch by 18-inch marble slabs. It is likely that the small dimensions of the missing markers made them particularly vulnerable to farming operations, road widening projects, relic hunting, and other threats.[153]

The next year, the Legislature of the State of New York created commissions and authorized them to purchase land for the erection of monuments to the Brooklyn Fourteenth, Fifth New York Volunteer Infantry (Duryee's Zouaves), and Tenth New York Volunteers (National Zouaves). Each commission was granted an appropriation of $1,500 to purchase the land and construct the monuments.[154] The three Commissions purchased from John Dogan three sites adjacent to each other on a total of 5.8 acres to form a "pleasant group." The granite monuments were constructed at the same time by contractor Henry Vollmer, with each Commission selecting an individual design to honor the three regiments. John Tillet erected the iron fences and gates surrounding the monuments. An iron gate memorializing the Fifth New York Volunteer Infantry was also constructed as part of this effort where Warren Avenue met the Warrenton Turnpike. While the 1907 dedication program indicates that Warren Avenue was present by this time, the inial date of construction for this road has not been confirmed. A joint unveiling ceremony for all three of the monuments took place on Saturday, October 20,

Figure 2-24. 14th Brooklyn Regiment monument, August 1907. 10th New York Monument is visible in the background (Ostrander, *Story of the Dedication of the Monument to the Memory of the Members of the "Fourteenth Brooklyn" Regiment, who fell on the Bull-Run battles' field*)

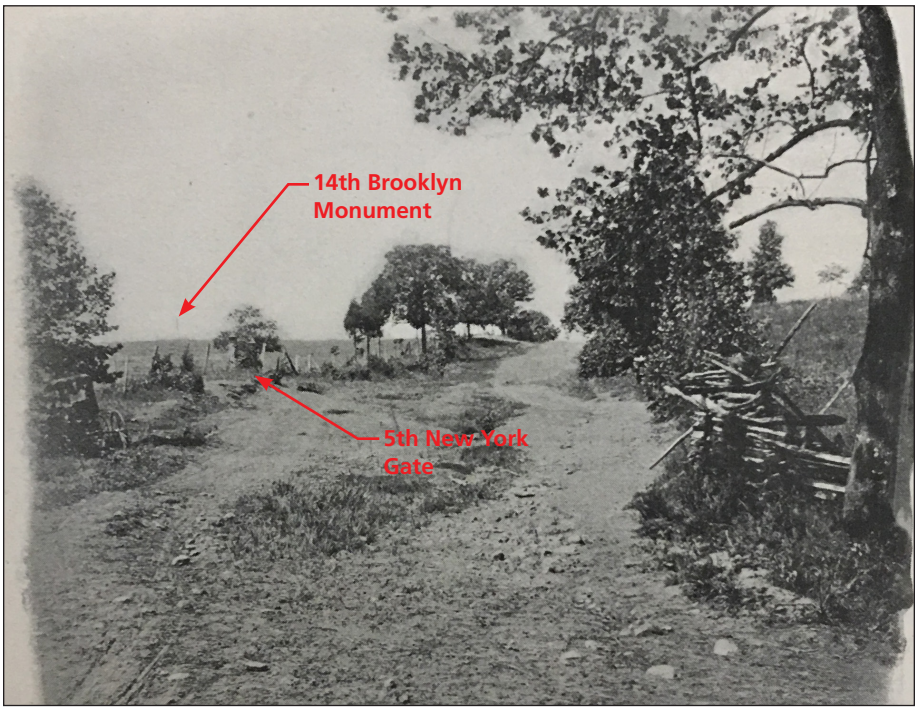


Figure 2-25. Warrenton Turnpike looking west, August 1907. The New York Avenue Gate and 14th Brooklyn Monument are visible on the left side of the photograph (Ostrander, *Story of the Dedication of the Monument to the Memory of the Members of the "Fourteenth Brooklyn" Regiment, who fell on the Bull-Run battles' field*)

1906. The ceremony attempted to foster a sense of unity between north and south; speakers included both Union General James McLeer and Col. Edmund Berkeley, commander of the Eighth Virginia Volunteers, and the Daughters of the Confederacy hosted New York veterans at a reception for the dedication (see Figure 2-24 and Figure 2-25).[155]

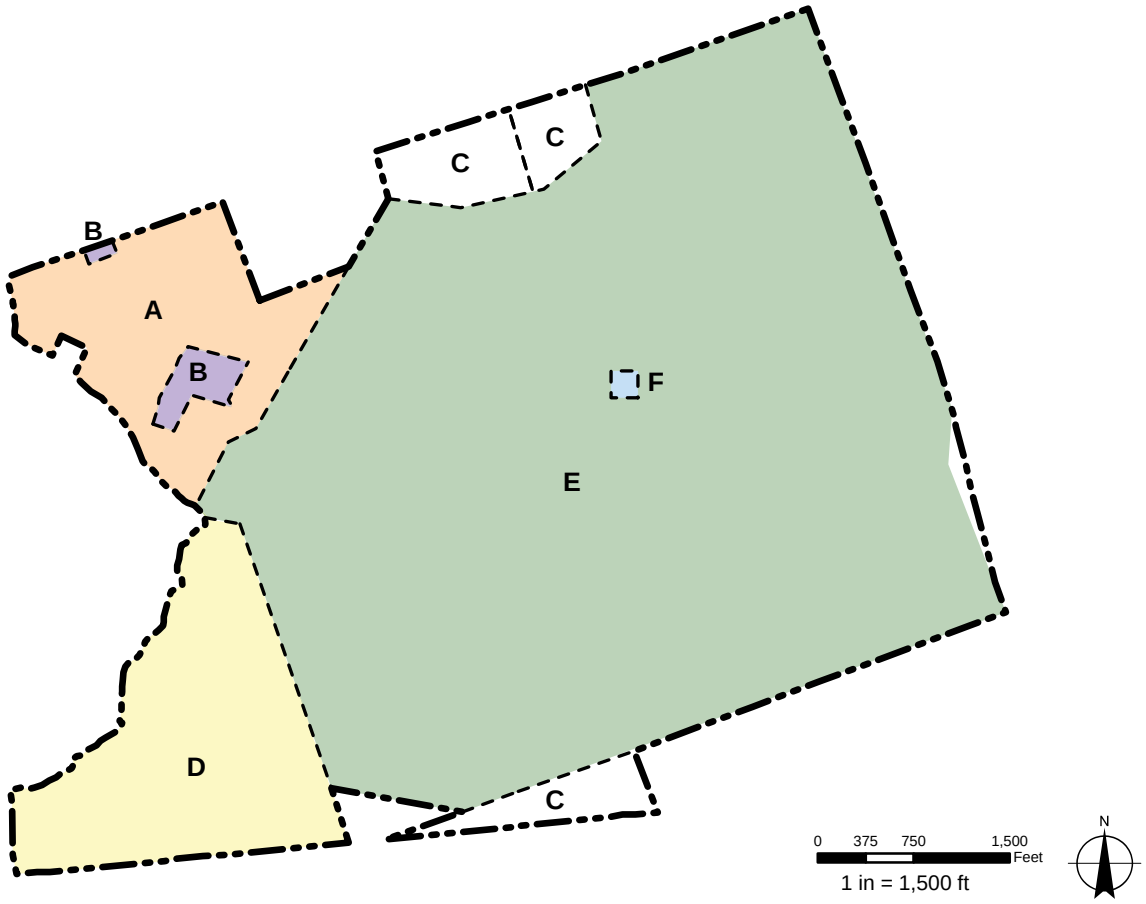
In 1914, Survivors of the 12th Massachusetts Regiment and members of the Colonel Fletcher Webster Post dedicated a monument to Colonel Fletcher Webster near the location where he was mortally wounded in the Second Battle of Manassas on the crest of Chinn Ridge. The monument consists of a large granite boulder brought to Manassas from Fletcher Webster's home in Marshfield, Massachusetts. It was erected on one acre of land purchased from Mrs. Emma L. Cather and her daughters Anna Cather and Cordelia Cather Swart by trustees of the Webster Monument Association.[156]

During the first half of the twentieth century, the family farms that had made up the study area were subdivided into tracts of various sizes (see Figure 2-26). The character of the landscape remained largely agricultural. An aerial photograph from 1937 indicates that areas of flat or rolling topography in both the New York Monuments and Chinn Ridge areas were still open field; however, substantial portions of the study area had become grown in with successional forest, particularly in areas of steep slopes and along streams.[157]

The land owned by W.R.E. Cross in the northwestern portion of the study area was subdivided into at least two smaller farms, which may have belonged to one of the families who purchased the Rosefield property during this period, including Thomas Moss, who owned the property from 1912 to 1919; the Sowers family, who owned the property from 1919 to 1954.[158]

The Dogan property in the northwest corner of the study area, was owned by Lucinda Dogan until her death in 1910. At this time, the 50 acre woodlot dower passed to her children; remaining interests in the woodlot were owned by John F. Dogan, Henrie E. Dogan, and Margaret Catherine Wiley.[159] In 1921, John and William Dogan sold 195.5 acres of Groveton, including property in the northwest portion of the study area, to C.C. Lynn.[160] A 20-acre portion of the property was sold again in 1926 to Edward Crawford.[161] By 1935, the property was owned by R. Walton Moore.[162] The former Chinn Farm property continued to be owned by the heirs of Andrew Cather until 1936, eventually passing to his daughter Cordelia Cather Swart, her husband Hamilton Swart, and daughter Anna Cather. Some modifications were made to maintain the house and continuing agricultural production on the property. Photographs of the house during this period reveal

Figure 2-26. Study area property ownership, 1905-1940.



Legend

- Historic Property Line
- Chinn Ridge CLR Study Area Boundary
- **A** Portions of the property owned by members of the Dogan family including Lucinda Dogan (1855-1908), ð hn F. Dogan, Henrie Dogan, and Margaret Catherine Wiley (until 1921)
  C.C. Lynn and heirs (1921-1930)
  R. Walton Moore and Thomas R. Keith and heirs (1930-1944)
- **B** State of New York purchased 5.8 acres from J Dogan (1906)
- **C** Undetermined
- **D** Alexander H. Compton (until 1916)
- **E** Swart (Cather) family conveyed 523 acres to the Federal government (1936)
- **F** Survivors of 12th Massachusetts Regiment and Col. Fletcher Webster Post purchased one acre from Swart family (1914)

a utilitarian agricultural landscape. The house sits within a small cluster of trees surrounded by farm fields. The yard surrounding the house, delineated by a pierced-post fence, stored farm implements (see Figure 2-27 and Figure 2-28). During Cather's ownership in 1911, the house was covered by a standing seam, metal roof.[163] A well pump adjacent to the cistern also appears to have been added around this time.[164] Another addition to the property in the late 19th or early 20th century is the orchard, which was located off of the north side of the house (see Figure 2-29).

Improvements were made to the poor condition Warrenton Turnpike in 1926. The road was realigned and paved with concrete. As part of regrading efforts, the topographic hills and valleys of the road were moderated, changing the character of the route. It was redesignated US Route 29-211.[165]

The Sons of Confederate Veterans established the first park at the site of the Manassas Battlefields by purchasing the 128-acre Henry farm, east of the study area across Sudley Road, in May 1921. Education was the primary focus of the Confederate park, and little effort was spent on restoring the historic appearance of the battlefield.[166]

Persuaded by early efforts to preserve the battlefield and reflecting a renewed interest in commemorating the actions of American soldiers, Congress reconsidered the idea of establishing battlefield parks. In June of 1926, legislation authorized the War Department, then in charge of all battlefield parks, to survey and identify battlefields on U.S. soil.[167] The National Park Service obtained control of the War Department's historic parks and monuments in 1933.[168]

Finally, in 1935, the Roosevelt administration designated 1,476 acres of the Manassas battlefields as the Bull Run Recreational Demonstration Area.[169] The recreational demonstration area was created under the newly established Resettlement Administration, which served to better the lives of rural and urban dwellers by using unprofitable land for other, more beneficial purposes. The National Park Service intended that the Bull Run Recreational Demonstration Area would become a historic interest destination, requiring broad-scale efforts including the restoration of the battlefields, development of visitor facilities, and marking of historic areas.[170]

The Bull Run Recreational Demonstration Area proposed to include the entirety of the study area. The Chinn property (Swart property) and New York Monuments area (Moore property) were identified as priority properties for acquisition. The plan identified a significant view to be reestablished through

Figure 2-27. Northeast corner of Chinn House, 1912 (MANA Archives).

Figure 2-28. Northwest corner of Chinn House, 1923. Pierced-post fence is visible off of the southwest corner of the structure (MANA Archives).

Figure 2-29. View of south face of Chinn House, 1936. Orchard trees are visible behind the line of tall fencerow vegetation (MANA Archives)

clearing vegetation between Chinn Ridge and the Henry House, and proposed realignment of the roads and trails accessing the Chinn House (see Figure 2-31).[171] Land acquisition within the study area began in 1936, when Anna Cather, Cordelia Cather Swart and Hamilton Swart conveyed 523.74 acres, including the Chinn House, to become part of the recreational demonstration area.[172]

Beginning in 1936, a series of WPA projects were undertaken at Chinn Ridge for development of the Bull Run Recreational Demonstration Area. The farm road, which provided access to the Chinn House, was realigned, and a new route, Chinn Ridge Road, was established along the ridge to facilitate interpretation of the battle site (see Figure 2-30 and Figure 2-31); the farm road is now referred to as South Chinn Drive). As part of the road construction, stone culverts were added in two locations where the road crosses Chinn Branch; prior to the construction of the culverts, the farm road forded the stream. Another road was added along Chinn Branch, now referred to as North Chinn Drive.

Archeological investigations and stabilization of the remains of the Chinn Farm were undertaken at this time. The Chinn House outbuildings were partially excavated, revealing the stone foundations of missing structures (see Figure 2-32). The foundations remnants and fill slumps created by the digging were still evident in 1981.[173]

Figure 2-30. South Chinn Drive, 1937, following road improvements associated with Bull Run Recreational Demonstration Area. Improved ditches and grading are visible on the road (MANA Archives).

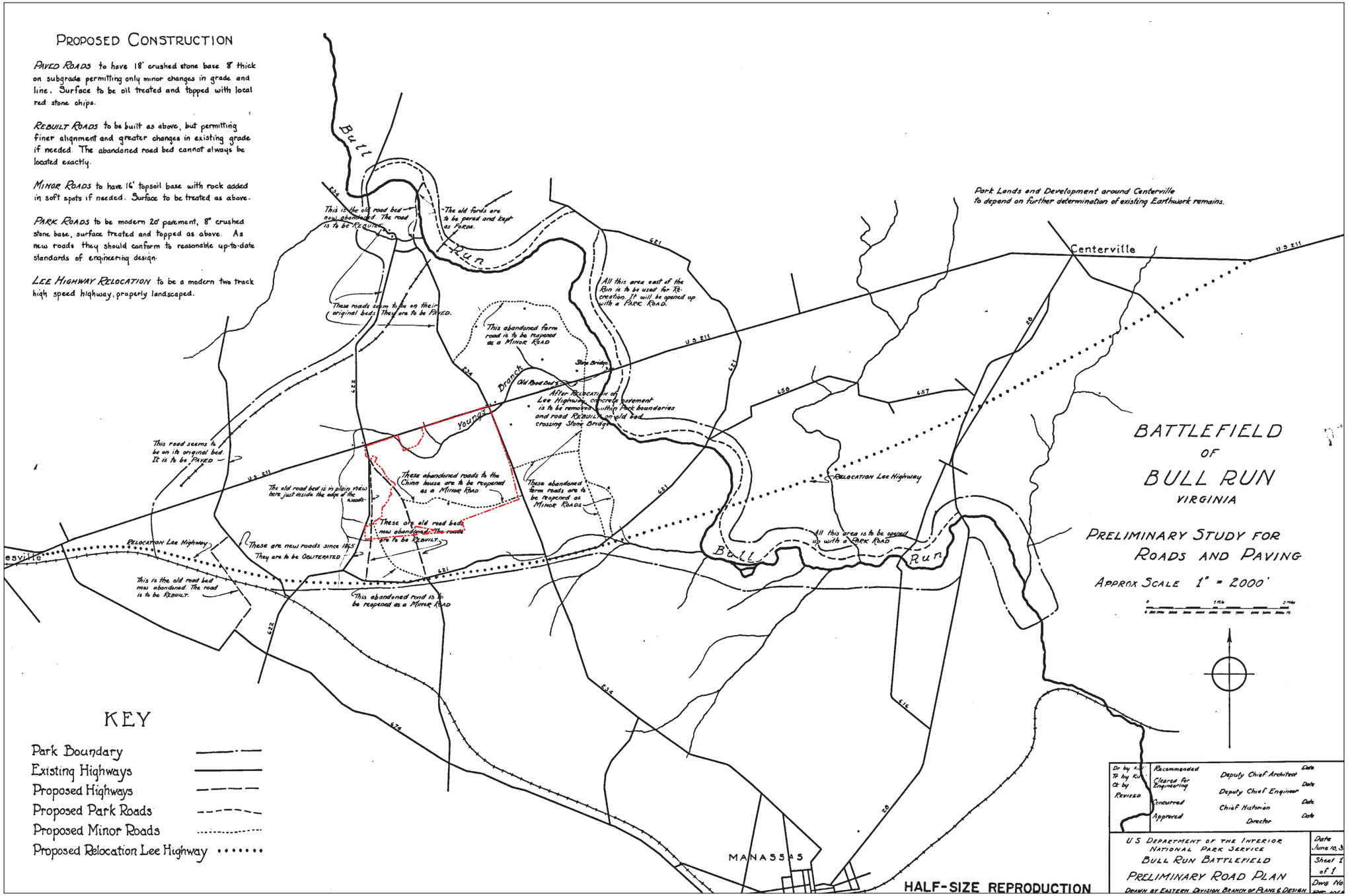


Figure 2-31. Proposed roads and trails drawing, 1936

The Hooe Cemetery was investigated as part of WPA projects (see Figure 2-33 and Figure 2-34). A 1936 report provides a description of the cemetery:

> "Going to the cemetery it is disappointing that many of what seem to be the oldest graves are so old and time worn that it is impossible to read the inscriptions. Those it was possible to make out follow:
>
> Bernard Hooe died at Hazel Plain, Prince William CO., Virginia, August 28th, 1825, aged 85 years.
>
> Mary Anna, daughter of James and [indecipherable] died Sept. 18th, 1804, aged 3 years, 10 months and 15 days."[174]

The dilapidated Chinn stables were dismantled in 1936; their poor condition is recorded in photos taken that year (see Figure 2-35 and Figure 2-36). Historically, the stables were located to the northeast of the Chinn House, on the right hand side of the farm road (South Chinn Drive). The structure was built into a hill in the manner of a bank barn, and consisted of a large frame building with a stone foundation, flat roof, and a shed addition to the west. The stables were a prominent feature of the historic farm, and are identified in historic maps of the battlefield and referenced in several advertisements. [175]

Another structure present on the Chinn Farm at this time was a 19th century residence located on the east side of Chinn Branch. This building was used as a field headquarters for WPA projects (see Figure 2-37). The location of this structure has been identified in 1986 archeological investigations undertaken by Thomas McGarry. It may be the structure indicated on Bald Hill on the 1878 Warren map (see Figure 2-13). The maintenance storage shed, currently extant within the maintenance area, was also constructed during this time, and was used by WPA staff.[176]

Emergency bracing was installed on the exterior of the building to stabilize the structurally compromised Chinn House (see Figure 2-38 and Figure 2-39).[177] The structural bracing would remain in place until the house was dismantled in 1950. In addition, stabilization measures were undertaken in the basement of the Chinn House to address erosion damage to the masonry wall believed to have occurred as the result of recent rains.[178]

Figure 2-32. Chinn House outbuilding excavation, ca. 1936 (MANA Archives)

Figure 2-33. Dry stacked Hooe cemetery wall prior to reconstruction (MANA Archives)

Figure 2-34. Bernard Hooe original headstone, 1950 (MANA Archives)

Figure 2-35. Chinn Stables, looking east, ca. 1936 (MANA Archives).

Figure 2-36. Chinn Stable foundation following dismantling of the building, 1936 (MANA Archives).

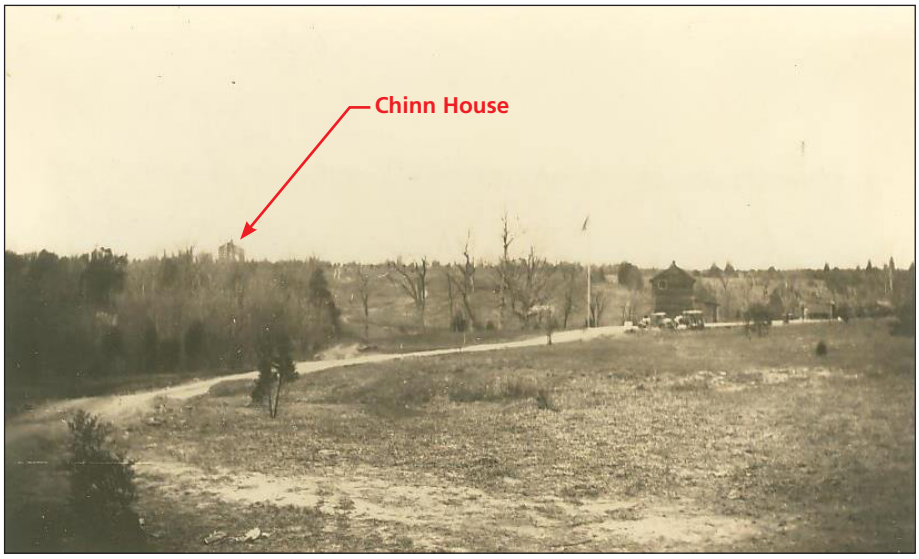


Figure 2-37. Approach to old field headquarters (19th century farmhouse). The Chinn House is visible on the ridge (MANA Archives).

Figure 2-38. Northwest corner of Chinn House, 1935. By this time, the house is in a dilapidated state. Fences that were visible in earlier photographs are no longer present (MANA Archives).

Figure 2-39. Northwest corner of Chinn House, 1936. Once acquired by NPS, bracing was constructed to stabilize the failing structure (MANA Archives)

Successional vegetation on Chinn Ridge and Bald Hill was extensively cleared in order to reestablish 1860s views that played an integral part in both Battles of Manassas. Reestablishing views involved clearing the corridor from Chinn Ridge to the Henry House, Chinn Ridge to the Stone House, and Chinn Ridge to the adjacent hill to the southeast [Bald Hill] (see Figure 2-40 through Figure 2-42).[179] Historical relics unearthed during clearing operations were saved for an eventual park museum.[180]

In 1940, the Secretary of the Interior used the authority of the 1935 Historic Sites Act to designate 1600 acres of the Bull Run Recreational Demonstration Area and the former Manassas Battlefield Confederate Park to create Manassas National Battlefield Park. The park was designated a National Historic Site.[181] Manassas National Battlefield Park was formally established in 1940 to preserve the battlefield scenes of First and Second Manassas.[182]

The Historic Period Plan for 1905 to 1940 (HP-3) illustrates landscape conditions present during this period.

Figure 2-40. Drawing indicating vegetation clearing and planting at Chinn Ridge. Light green indicates areas to be planted, while dark green designates existing forest to remain. (MANA Archives)

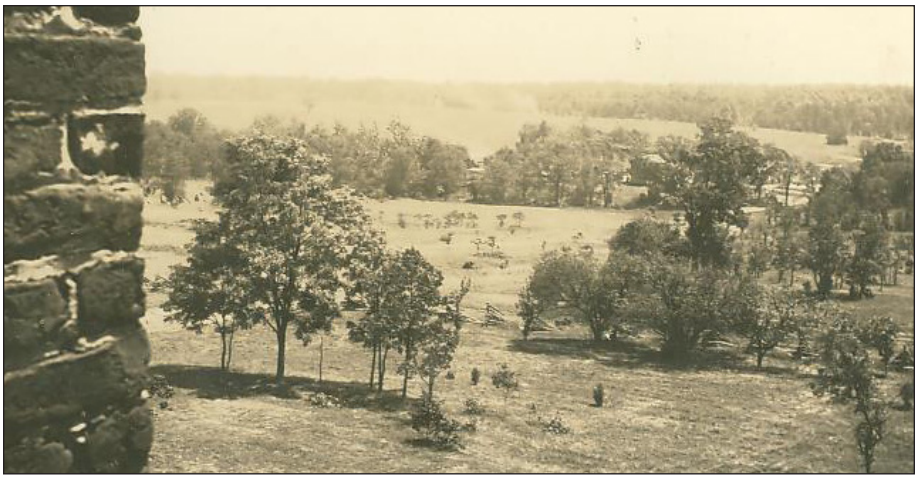


Figure 2-41. View to southeast from Chinn House after clearing, June 1936 (MANA Archives)

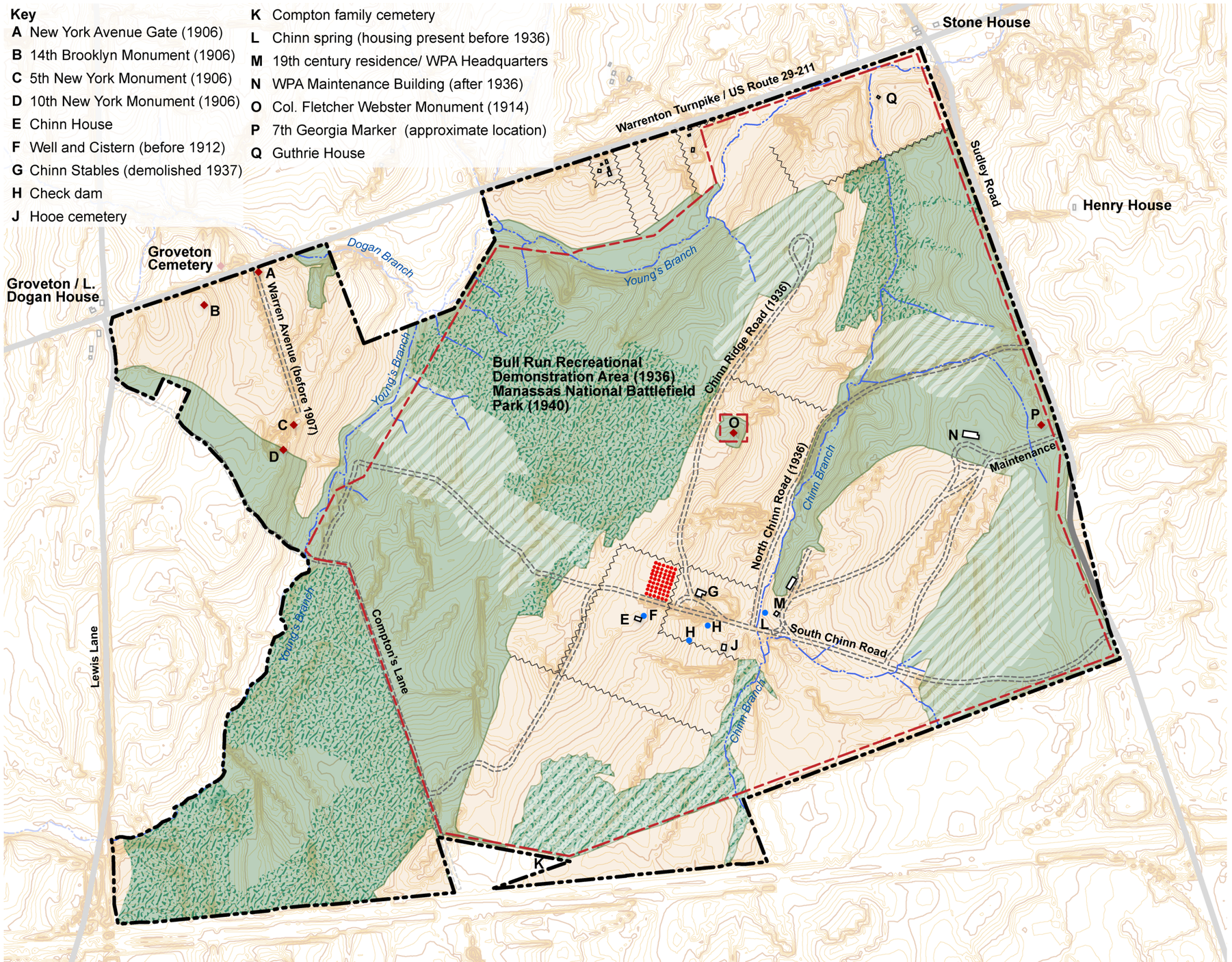
Figure 2-42. The view east from Chinn Ridge to Henry Hill remained clear approximately 10 years after woody vegetation was removed to restore the view (MANA Archives, 1949)

Chinn Ridge Cultural Landscape Report
Manassas National Battlefield Park

1905-1940
Historic Period Plan

Key

- **A** New York Avenue Gate (1906)
- **B** 14th Brooklyn Monument (1906)
- **C** 5th New York Monument (1906)
- **D** 10th New York Monument (1906)
- **E** Chinn House
- **F** Well and Cistern (before 1912)
- **G** Chinn Stables (demolished 1937)
- **H** Check dam
- **J** Hooe cemetery
- **K** Compton family cemetery
- **L** Chinn spring (housing present before 1936)
- **M** 19th century residence/ WPA Headquarters
- **N** WPA Maintenance Building (after 1936)
- **O** Col. Fletcher Webster Monument (1914)
- **P** 7th Georgia Marker (approximate location)
- **Q** Guthrie House



Legend

- Chinn Ridge CLR Study Area
- Property boundary (1940)
- Building
- Monument
- Main road
- Minor road/trail
- Stream
- Successional forests, predominantly pine
- Oak/pine mixed woodland
- Pasture or crop field
- Woodland cleared by WPA (1936)
- Orchard
- Fencelines
- Constructed water feature
- 10-foot contour (2018)
- 2-foot contour (2018)

Notes and Sources

1. 1937 aerial photograph: Vegetation, roads, fencelines, streams, buildings
2. MANA GIS Archives: roads, topography, streams, buildings, monuments
3. Bull Run Battlefield Study for Growth Conditions, 1935: vegetation clearing.
4: Sketch showing approximate location of properties on Manssas Battlefield, 1935: property boundaries
5. Manassas National Battlefield Park, Virginia, 1940: property boundaries

0 400 800 1,600 Feet

1 in = 800 ft

N

NPS No. MANA 379 137862 | **HP-3**

QUINN EVANS ARCHITECTS

National Park Service
National Capital Region

NATIONAL BATTLEFIELD PARK, 1940-PRESENT

Manassas Battlefield Park

Following its establishment in 1940, a master plan was laid out for the new Manassas National Battlefield Park including a comprehensive design for roads, trails, and utilities (see Figure 2-44). Within the former Chinn Farm, a parking area and overlook were constructed at the north end of Chinn Ridge (see Figure 2-43). The land owned by the National Park Service was centered around Henry Hill, and consequently interpretation focused on First Manassas. To serve maintenance needs at the new park, the existing utility group previously utilized for the Bull Run Recreational Demonstration Project were retained on Bald Hill, the rise to the southeast of Chinn Ridge. Land immediately to the south of Lee Highway, including the New York Monuments, was identified as a high priority for acquisition.[183]

Figure 2-43. View from overlook near the road turnaround at the north end of Chinn Ridge, 1946 (MANA Archives)

Chinn House Demolition

At the time that Manassas National Battlefield Park was established, the poor condition Chinn House was slated for restoration. In 1940, relief workers who remained under the recreational demonstration area program removed the Chinn House's weatherboarding as the initial step in its rehabilitation. Labor and funding for protection of the structure soon became limited by the disbandment of this group of workers in June 1941 and the United States' entry into World War II. Unable to undertake a full-scale restoration effort, the National Park Service covered the building with tar paper. Over time, exposure to the elements destroyed the tar paper and left the underlying structure exposed, and high winds eventually ripped off a portion of the metal roof.[184]

Deterioration of the Chinn House aroused concern among local residents, who had shown active support for preservation of the Dogan House, and encouraged the Park Service to protect other resources on the property (see Figure 2-45).[185] A National Park Service memorandum written in 1948 by future park Superintendent Francis F. Wilshin described the inadequate preservation efforts undertaken at the house, noting that it had become a seriously compromised structure in a little over 10 years:

> "The present condition of the Chinn House is, through an unfortunate chain of circumstances, due largely to its treatment under National Park Service administration. At the time the National Park Service took over it was apparently in a fair state of preservation. Plans were then being considered for its restoration. A phase of the early study of the structure resulted in the removal of its weatherboarding. Later developments, the abolition of the CCC and World War II, made the restoration of the house impractical. Finally, the framing was covered with tar paper in lieu of replacing the weatherboarding. The tar paper in a few years was destroyed by the elements, leaving the framing exposed. As a result the framing deteriorated and high winds were able to sweep through the house with such force as to rip off the roof."[186]

Wilshin also advised that demolition of the building would "have an adverse effect" on Manassas residents.[187] However, a 1950 inspection revealed that the Chinn House constituted a serious safety hazard. The building had become too far deteriorated to attempt restoration. The National Park Service removed the wood framing, leaving the two chimneys standing. Within days, severe winds destroyed the east chimney. As it had become apparent that the west chimney would not hold up to continued exposure to the elements, the structure was leveled and the chimneys capped at their foundations, and the stone foundation was preserved.[188] The National Park Service contracted the demolition to W.W. Lawrence who kept (and reused) some of the timbers.[189] The Chinn House has been considered the single greatest preservation loss on the Manassas battlefields. Prior to acquisition of the Dogan and Stone houses, it had been the only original wartime structure standing within the park's boundaries.[190] The remains of the foundation were documented by the Historic American Buildings Survey (HABS) in 1959 (see Figure 2-46).

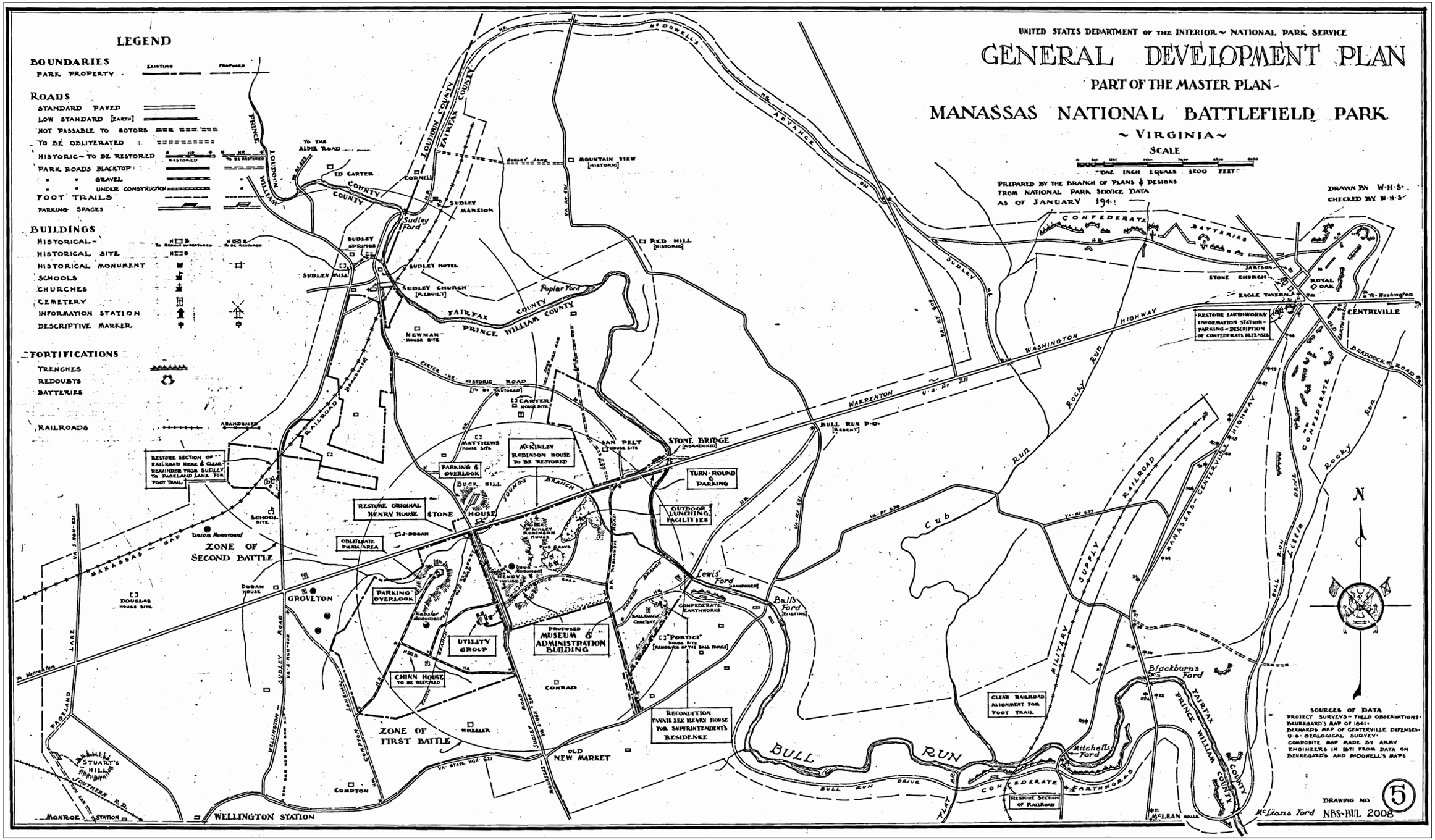


Figure 2-44. General Development Plan for Manassas National Battlefield Park, 1940 (MANA Archives)

Figure 2-45. View of southwest corner of Chinn House, 1949 (MANA Archives, 1949)

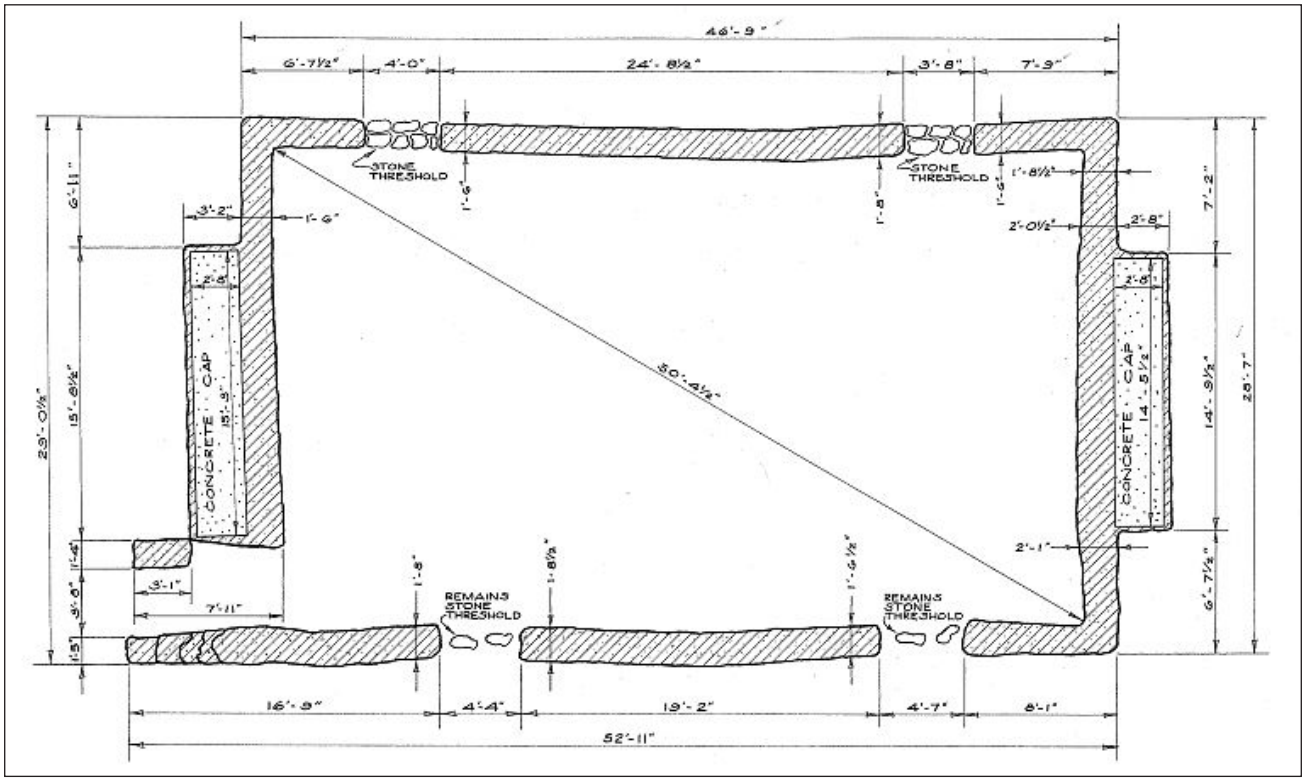


Figure 2-46. HABS drawing of Chinn House Foundation, 1959 (Library of Congress)

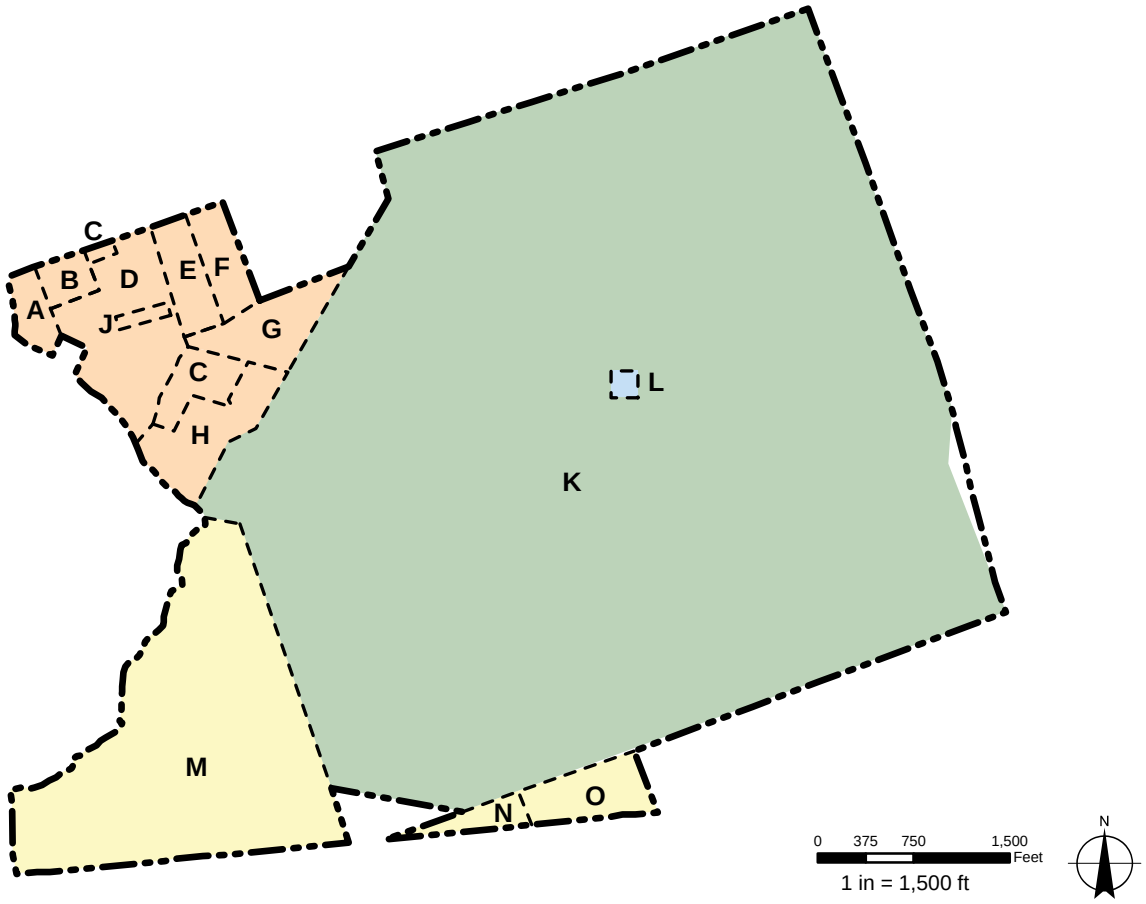
At the same time, the post-World War II construction boom in Northern Virginia had begun to put development pressure on historic properties in Manassas. From 1944-1948, developer John T. Hottel acquired 37 acres of land immediately adjacent to the New York Monuments. The land was subdivided into a number of parcels for suburban home lots, and construction began on three houses in this area (see Figure 2-47).[191] Recognizing the importance of this land to the Battle of Second Manassas, NPS initiated efforts to protect historically significant properties outside the initial park boundaries. Park Superintendent Joseph Mills Hanson had the land appraised and negotiated an option with Hottel to sell a portion of the land to the Park Service. However, the option ran out before NPS obtained the necessary funding.[192]

By this time, the New York monuments had fallen into a state of disrepair. When the park was established, no easement had been acquired for public access to the monuments, and their condition continued to deteriorate into the early 1950s.[193] In order to address the "deplorable" condition of the abandoned New York Monuments, the New York department of state parks and the New York state land office hired a contractor to clean up the small plots of land and repair the monuments and their surrounding gates and fences.[194]

Prompted by appeals from the director of the New York state parks to protect the monuments that honored the many New Yorkers who had died at Second Manassas, the New York state legislature authorized donation of the three monuments to the federal government for inclusion in the Manassas National Battlefield Park in 1950. However, the parcels containing the monuments were not contiguous with the park's boundary, and transfer of the monuments was delayed until sufficient lands were acquired.[195]

In 1954, Congress approved an expansion of the legislated boundary of Manassas National Battlefield Park, including the New York Monuments and surrounding parcels.[196] Based on this 1954 legislation, Public Law 338 set the new boundary for Manassas National Battlefield Park. The expanded boundary rounded out the park and provided a mechanism for connecting scattered tracts.[197] During this period, the parcels subdivided by John T. Hottel adjacent to the New York Monuments were reunited as property of the National Battlefield Park. The State of New York deeded the three parcels of land containing the monuments to the federal government in May, 1957, and the National Park Service accepted these monuments in June 1958.[198] Photographs of the monuments taken ca. 1960 show that around this time, young red cedar trees were planted adjacent to the monuments (see Figure 2-48). The trees were removed by the 1980s.

Figure 2-47. Study area property ownership, 1940-present.



Legend

- Historic Property Line
- Chinn Ridge CLR Study Area Boundary
- **A** Conveyed from ð hn and Rose Hottel to NPS with 1 house and 1 outbuilding (1956)
- **B** Subdivided from J Hottel. Conveyed from ð hn H. Parris to NPS (1953)
- **C** Conveyed from State of New York to NPS with 3 monuments (1958)
- **D** Conveyed from ð hn and Rose Hottel to NPS (1953)
- **E** Subdivided from J Hottel. Conveyed from Willis G. Early to NPS with 1 house (1955)
- **F** Subdivided from J Hottel. Conveyed from Lewis E. Smith et. al. to NPS with 1 house (1963)
- **G** Subdivided from J Hottel. Conveyed from ð seph W. Patterson to NPS (1955)
- **H** Subdivided from J Hottel. Conveyed from Charles K. Cravers to NPS with 1 house (1953)
- **J** Conveyed from ð seph A. Nycz et. ux., Lois M. Nycz to NPS (1953)
- **K** Manassas National Battlefield Park (1940)
- **L** Fletcher Webster Monument inholding
- **M** Conveyed from Southern Lightweight Aggregate Corp to NPS (1986)
- **N** Conveyed from Paul E. Allison et ux. (1986)
- **O** Conveyed from SWG LLC to NPS (2002)
- 1950s-1960s land transfers
- 1980s-2002 land transfers

Figure 2-48. 10th New York Monument, ca. 1960. Red cedar trees have been planted adjacent to the iron fence at some time around this date (MANA Archives).

An additional threat to the historic landscape came in the form of highway development in 1957. The Virginia Department of Highways announced that a new interstate highway would be developed connecting west from Washington, D.C. to the Shenandoah Valley, following Lee Highway in Prince William County.[199] The new interstate would require widening Lee Highway to at least three hundred feet to accommodate the necessary lanes, median, right-of-way, and service roads. An interchange was planned at Route 234, the location of the Stone House.[200] Following a successful letter campaign from Civil War Round Tables as far away as England, the state highway commission agreed to consider alternative locations, eventually adopting the present southern route of the interstate.[201]

During the 50s and 60s, interpretation of the battles and education of visitors about Manassas during the Civil War became a personal passion for Superintendent Francis Wilshin. As part of these interpretive efforts within the park, another parking area was added on Chinn Ridge near the Chinn House remains. South Chinn Drive was realigned near the Chinn House, and the roads were repaved.[202] A series of oblique aerial photographs shows development within the study area, including the presence of trail and roads, fencelines and field edges, and several recently constructed buildings outside the park boundary (see Figure 2-49).

Over the next decade, it became clear that heavy recreational use was having a detrimental effect on the historic resources of Manassas National Battlefield Park. A centennial reenactment of the First Battle of Manassas on the weekend of 21 July 1961 caused minor damage to the Chinn Ridge landscape, where heavy usage

by camping reenactors necessitated reseeding.[203] Additional recreational impacts are described in the 2017 *Chinn Ridge Cultural Landscape Inventory*:

> "[Superintendent] Wilshin's successor, Russell W. Berry, Jr., noted in 1969 that the entire park was saturated with recreational use. On the battlefield, it was "solid cars and picnic blankets and Frisbees and dogs running." He adopted a series of gates to reduce unauthorized recreational use, established horse trails, and restricted picnicking to designated areas. One picnic area was created at the northeastern crest of Chinn Ridge. Berry's approach fully supported the park's mission to preserve and protect the Manassas battlefields."[204]

Minister Steadman, a visitor to the site in 1967, recorded the condition of the Hooe Cemetery.[205] Mr. Steadman also stated that many other broken fragments of stones were present and he had heard that at least 30 burials were at this cemetery, including a corner for slaves.[206] In this year, the three remaining Hooe Cemetery headstones were vandalized, leaving only the footstones remaining.[207] A memorandum dated March 23, 1967, from Park Superintendent Francis Wilshin to the regional director of the National Park Service, requested funding for the rehabilitation of the cemetery walls. The rehabilitation, which reconstructed the walls to their current mortared condition, was completed before 1980.[208]

Development pressures surrounding the park continued throughout the late 1960s and early 1970s. To curb infringing construction, the legislated park boundary was once again expanded in 1980 through Public Law 96-442, which allowed the addition of almost 1,500 acres to the park.[209] Additional property within the study area was added to the National Battlefield Park following the boundary expansion along Compton's Lane (see Figure 2-47).[210] The parcels include a small cemetery associated with the Davis family, who resided in the southern portion of the study area in the late 19th century and early 20th century.[211]

Interpretive developments in the study area continued into the late 1970s and 1980s. In 1978, a Parrott rifle was positioned to mark the position of Captain G.F. Leppien's 5th Maine Battery on Chinn Ridge.[212] The two 12-pounder Napoleon cannons flanking the 14th Brooklyn Monument were already present at this time, and had likely been placed sometime after the Centennial reenactment in 1961.[213] A narrow interpretive viewing corridor was cleared from the Henry Hill visitor center to Chinn Ridge, however, the view was not maintained and has since become grown in with successional vegetation.[214] In 1988, a series of trailside markers were positioned at key stops in the First and Second Manassas walking and auto tours to provide information to visitors on the significance of specific sites to the two battles. The waysides included quotations from soldiers, troop position maps, photographic reproductions, and supporting text. These new markers replaced what had been a hodgepodge of markers installed over the

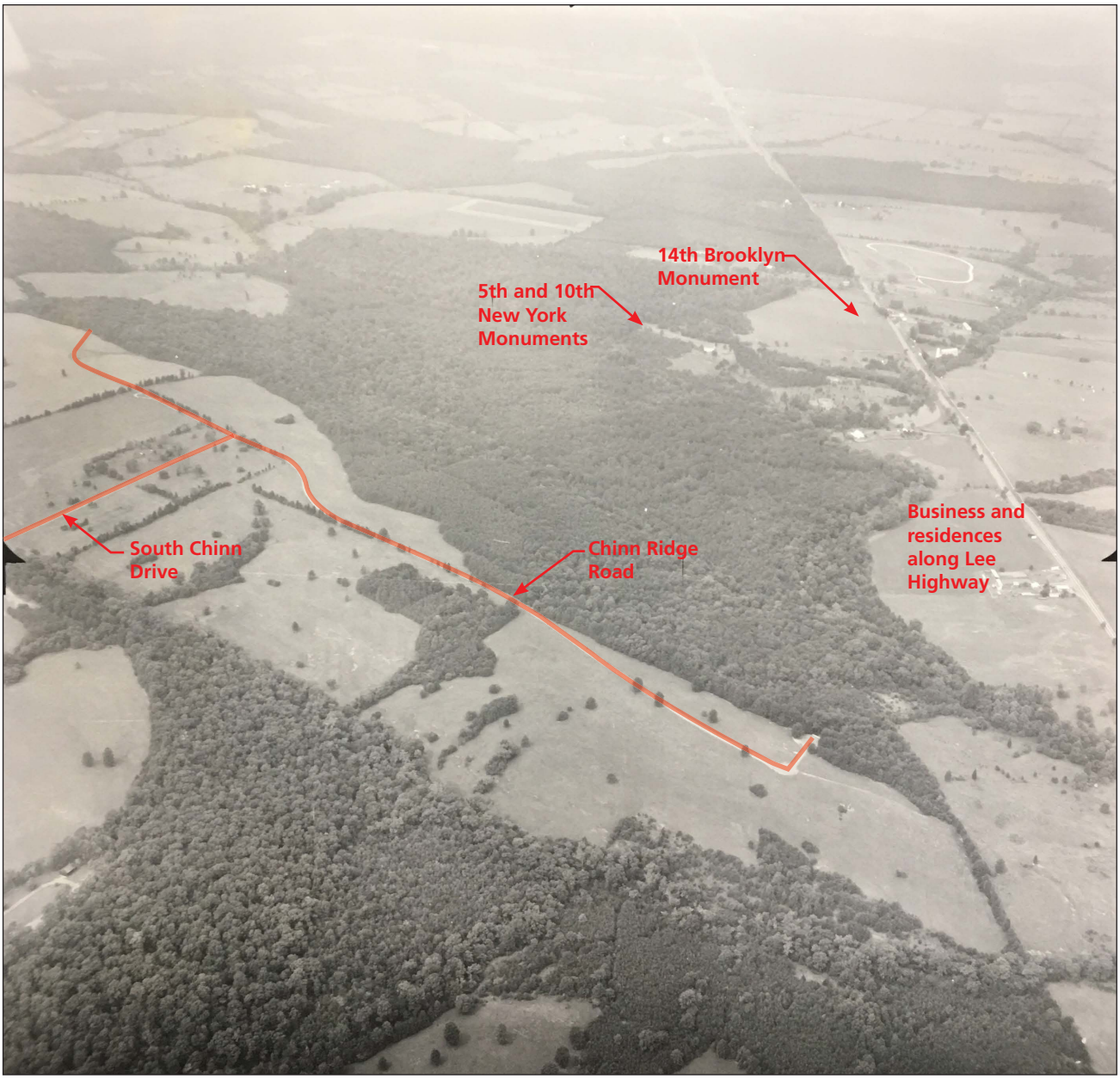


Figure 2-49. Oblique aerial photo of study area, August 1956, shows trail development in park-owned areas along Chinn Ridge. Chinn Ridge Road and South Chinn Drive are highlighted in red. Several business and residences are present on the north side of the study area, including a mid-20th century building just east of the 5th and 10th New York Monuments. The businesses catered to automobile traffic through the area (MANA Archives) .

previous thirty years. Waysides from this installation remain within the study area at various locations along Chinn Ridge and at the 14th Brooklyn Monument.[215]

Manassas National Battlefield Park was listed on the National Register of Historic Places in 1981. The nomination form identified the Chinn House Remains, Fletcher Webster Monument, Hooe Cemetery, and New York Avenue including the 5th New York Regiment decorative gate, 5th New York Monument, 10th New York Monument, and 14th Brooklyn Monument as contributing to the battlefield's significance within the study area.[216]

Archeological studies were also undertaken within the study area beginning in the 1980s. In 1981, Thomas McGarry conducted a ground survey of known resources associated with the battles, in which he located known or obvious features on the Chinn Ridge property, such as exposed foundations, and examined the ground surface for indications of subsurface features.[217] A 1986 McGarry report identified 26 sites associated with Indigenous occupation and settlement-era sites, five of which are located within the study area. Additional scatter associated with Indigenous occupation was discovered along Chinn Branch and Chinn Ridge in a 1988 survey.[218]

A 2000 report by Matthew Reeves identified a early 19th century dependency site associated with the Hooe family[219] The site, located at the intersection of Lee Highway and Sudley Road (Routes 29 and 234), consists of an early nineteenth century domestic site believed to be field quarters for enslaved African Americans associated with the Hazel Plain plantation. Archeological investigations revealed evidence of one architectural feature as well as numerous early 19th century artifacts including window glass, nails, bottle glass, ceramics and earthenware, oyster shell, and bone. Results of the site examination suggest that the Hooe Dependency site is potentially eligible for the National Register of Historic Places.[220] This is also the approximate location of a dwelling appearing in photos of the 1904 army maneuvers (see Figure 2-22) and identified as the Guthrie House.

Recent developments within the study area have included removing the parking area at the north end of Chinn Ridge and reducing the road along the ridge to a footpath.[221] At this time, the north entrance to Chinn Ridge from Route 234 was realigned to meet the highway directly across from the Visitor Center driveway. One-way traffic was instituted to the Chinn Farm parking area, with in-bound traffic on the northern access from Route 234 (North Chinn Drive) and outbound traffic directed out of the southern access (South Chinn Drive).[222]

A replacement marker for the missing Bernard Hooe Sr.'s new headstone was dedicated and placed in the Hooe Cemetery by the Sons of the American Revolution in 2007.[223] In 2008, The Parrott rifle located on Chinn Ridge was replaced by two 12-pounder Napoleons, which more accurately represents the guns used by the 5th Maine Battery in this location. The two cannons, while historically accurate to the Civil War, were not original to Manassas National Battlefield. The cannon were acquired through an exchange with other military parks in the National Park Service.[224] A monument dedicated to the Texas units engaged in the Battle of Second Manassas was placed on Chinn Ridge by the State of Texas near Colonel Webster's monument in 2012. The monument consists of a large, dressed block of granite and is inscribed with dedications on both sides. It is located about 25 feet south of the Webster monument.[225] In the following year, the west New York Avenue gate was hit by a car, and removed to park storage awaiting reinstallation.[226]

ENDNOTES

1 Jennifer Oeschger, *Chinn Ridge Cultural Landscape Inventory, Manassas National Battlefield Park* (US Department of the Interior, National Park Service, Draft December 2016).

2 Joan M. Zenzen, *Battling for Manassas: The Fifty-Year Preservation Struggle at Manassas National Battlefield Park* (Pennsylvania State University Press, 1998); Laura Virginia Trieschmann, "Manassas Battlefield Historic District (Amended and Boundary Expansion)," National Register of Historic Places Registration Form (Washington, DC: US Department of the Interior, National Park Service, 2006); National Park Service, *Final General Management Plan/Environmental Impact Statement, Manassas National Battlefield Park* (Washington, DC: US Department of the Interior, National Park Service, 2011 [final submitted 2008, signed 2011]); Daniel Schaible et al., *Fence Lines, Fields, and Forests: Manassas National Battlefield Cultural Landscape Report* (Washington, DC: National Park Service, National Capital Region, Cultural Resources Program, 2013); Quinn Evans Architects and the Louis Berger Group, *Manassas National Battlefield Park Unfinished Railroad Cultural Landscape Report* (National Park Service, National Capital Region, 2014).

3 Trieschmann, "Manassas Battlefield Historic District (Amended and Boundary Expansion)," National Register of Historic Places Registration Form, 40-41.

4 Matthew Reeves, Gail Brown, and Kimberly Holmes, *Phase I and II Cultural Resource Investigation of Proposed Federal Highway Improvements at Parking Areas and Access Road*s (National Park Service, 2002), 32; Thomas E. McGarry and Charles F. Bohannon, *An Archeological Survey of Selected Portions of Manassas National Battlefield Park, Prince William County, Virginia* (US Department of the Interior, National Park Service, Denver Service Center, 1996), 32-35.

5 Quinn Evans Architects, *Unfinished Railroad Cultural Landscape Report,* 1.1.

6 Schiable, *Fencelines, Fields, and Forests: Cultural Landscape Report,* 11.

7 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 23.

8 Gwendolyn K. White, *Rosefield: The History of the John Dogan Farm, Manassas National Battlefield Park, Historic Resource Study*, doctoral thesis, George Mason University, 2012, 2; cites Minor T Weisiger, comp. "Northern Neck Land Proprietary Records,"" The Library of Virginia Research Notes, Number 23 (Richmond, VA, 2002), 1-2.

9 White, *Rosefield Historic Resource Study,* 2; cites Virginius Dabney, *Virginia: The New Dominion A History from 1607 to the Present* (New York: Doubleday & Co., 1971), 83.

10 Quinn Evans Architects, *Unfinished Railroad Cultural Landscape Report,* 1.1.

11 White, *Rosefield Historic Resource Study,* 2; cites Virginius Dabney, *Virginia: The New Dominion A History from 1607 to the Present* (New York: Doubleday & Co., 1971), 83.

12 Joseph, *Northwest Quadrant Cultural Landscape Inventory*, 3-2.

13 White, *Rosefield Historic Resource Study,* 5; cites Prince William County Land Tax Records, 1788-1793, microfilm.

14 White, *Rosefield Historic Resource Study,* 7; cites Greene. Diary of Landon Carter, 591.

15 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 24; cites Northern Neck Grants A, 1722-1726, p. 184, Folio (reel 290).

16 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 24; cites Culpeper County Will Book A, pg. 210-211, from abstracts by Ruth and Sam Sparacio.

17 Quinn Evans Architects, *Unfinished Railroad Cultural Landscape Report,* 1.1; and Schiable, *Fencelines, Fields, and Forests: Cultural Landscape Report,* 11.

18 Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National*

Battlefield Park, 3-2; cites Maureen Joseph, *Cultural Landscape Inventory: Northeast Quadrant, Manassas National Battlefield Park* (US Department of the Interior, National Park Service, Harpers Ferry National Historical Park, 1996).

19 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 26-27.

20 Reeves et. al., *Phase I and II Cultural Resource Investigation and Site Examination of Proposed Intersection Improvements at Routes 29 and 234,* 46-47.

21 Oeschger, Chinn Ridge C*ultural Landscape Inventory,* 26.

22 Historic American Building Survey, *Architectural Remains, Chinn House,* Manassas National Battlefield Park, Prince William County, VA 138, Sheet 2 of 3; and National Park Service, *Chinn Ridge Cultural Landscape Inventory*; 26.

23 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 40; cites Morrison 1987, 308.

24 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 40; cites Prince William County Fire Insurance Policies, 1796-1846, abstracted by Donald L. Wilson.

25 McGarry, *Manassas Historic Sites Survey*, 54-55.

26 McGarry, *Manassas Historic Sites Survey*, 54-60.

27 Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 3-6; cites Steadman Letter, 1967, MANA files.

28 McGarry, *Manassas Historic Sites Survey*, 57.

29 Virginia Routes 29 and 234

30 Reeves et. al., *Phase I and II Cultural Resource Investigation and Site Examination of Proposed Intersection Improvements at Routes 29 and 234,* 103-106.

31 Reeves, *Phase I and II Cultural Resource Investigation and Site Examination of Proposed Intersection Improvements at Routes 29 and 234,* 48.

32 Reeves et. al., *Phase I and II Cultural Resource Investigation and Site Examination of Proposed Intersection Improvements at Routes 29 and 234,* 47; cites Parker and Hemigle, 1990.

33 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 27; cites Steadman letter 1967, MANA Archives, George T. Beck 1890 and Thomas Turner Smith 1901, SAR applications; Louisa Bernard Gallaher, DAR Lineage Book.

34 Reeves, *Phase I and II Cultural Resource Investigation and Site Examination of Proposed Intersection Improvements at Routes 29 and 234,* 47-49, 104; and Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 27.

35 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 27; cites Will Book M:350.

36 "Hazel Plain," *Alexandria Gazette*, December 30, 1831, accessed January 2018, http:www.pwcvirginia.com/documents/1HazelPlain.pdf.

37 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 28.

38 Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 3-6 and 3-7; cites Hazel Plain ownership from Wilshin Memorandum March 25, 1948, MANA files.

39 Oeschger, Chinn Ridge C*ultural Landscape Inventory,* 28; cites Smith 1980:22 in Parsons 1996:3.6.

40 Oeschger, Chinn Ridge C*ultural Landscape Inventory,* 28; cites Wilshin 1948 in Parsons 2006:3.6.

41 Summary of 1850 agricultural census by Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 3-8; cites National Archives, Non-Population Schedules, Agricultural Census, Prince William County, VA, 1850.

42 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 28; cites 1850 Federal Census; Manassas National Jubilee of Peace 1911, 128.

43 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 20.

44 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 20.

45 Joseph, *Northwest Quadrant Cultural Landscape Inventory*, 3-7; cites Prince William County Will Book M:266.

46 "Abstract of Title to a tract of parcel of land, lying and being situate at Groveton...", Item 2, 01-158 John T. Hottel, MANA Property Records.

47 White, *Rosefield Historic Resource Study,* 5; cites Maureen De Lay Joseph. *Northwest Quadrant Manassas, National Battlefield Park, Cultural Landscape Inventory*, 1996.

48 White, *Rosefield Historic Resource Study,* 13; cites Prince William County Will Book K:452, microfilm.

49 White, *Rosefield Historic Resource Study,* 13; cites Prince William County Will Book K: 440, microfilm.

50 White, *Rosefield Historic Resource Study,* 23; cites PWC Deed Book 19:55-56, microfilm. As indicated by White, the land deeds regarding Rosefield are somewhat unclear. While Hamilton sold the property to her aunt Ann H. Edwards in 1843, it remained in Robert Hamilton's name on land tax rolls until 1846 when it appeared in John Dogan's name. The deed of sale between Hamilton and Edwards does not specify the number of acres involved. However, when Dogan acquired the property it was the full 124 acres.

51 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 25; cites PWC HistDeed 000Y 0007

52 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 25; cites Crothers 2001:140; Low 1951:125; and Schaible 2013:29.

53 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 25; cites Reeves et. al., *Phase I and II Cultural Resource Investigation and Site Examination of Proposed Intersection Improvements at Routes 29 and 234,* 14; and Wright, 536.

54 Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 3-5.

55 Schiable, *Fencelines, Fields, and Forests: Cultural Landscape Report,* 32; cites National Park Service, *General Management Plan*, 264.

56 Schiable, *Fencelines, Fields, and Forests: Cultural Landscape Report,* 22-23; cites Susan Allport, *Sermons in Stone: The Stone Walls of New England and New York*, (WW Norton and Company, 1994).

57 Schiable, *Fencelines, Fields, and Forests: Cultural Landscape Report,* 25; cites Driecer, *Between Fences*, 20; and Eugene Cotton Mater and John Fraser Hart, "Fences and Farms" Geographic Review (1954), 213.

58 Summary of 1850 agricultural census by Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 3-8; cites National Archives, Non-Population Schedules, Agricultural Census, Prince William County, VA, 1850.

59 Summary of 1860 agricultural census by Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 3-9; cites National Archives, Non-Population Schedules, Agricultural Census, Prince William County, VA, 1860.

60 Summary of 1860 agricultural census by Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 3-9; cites National Archives, Non-Population Schedules, Agricultural Census, Prince William County, VA, 1860.

61 Joseph, *Northwest Quadrant Cultural Landscape Inventory*, 3-4; cites 1815 plat map of Wormley Carter estate, Prince William Land Causes Book 3, 65-70.

62 Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 3-4.

63 Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 3-4; cites Ewell, 1821, cited in Francis Wilshin, *The Stone House: Embattled Landmark of Bull Run Part 1 Narrative and Appendix* (1961), 47.

64 Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 3-4 and 3-5; cites Francis Wilshin, *The Stone House: Embattled Landmark of Bull Run Part 1 Narrative and Appendix* (1961), 64.

65 Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 3-5.

66 Schiable, *Fencelines, Fields, and Forests: Cultural Landscape Report,* 12.

67 Treischmann, "Manassas Battlefield Historic District, Prince William County, Virginia," 50-51; and Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 3-14; cites Edwin Bearss, *Historical Report: Troop Movement Maps: Battle of First Manassas and Engagement at Blackburn's Ford* (US Department of the Interior, National Park Service, Manassas National Battlefield Park, 1981).

68 Trieschmann, "Manassas Battlefield Historic District, Prince William County, Virginia," 50-51.

69 Schiable, *Fencelines, Fields, and Forests: Cultural Landscape Report*, 12.

70 Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 3-14; cites Edwin Bearss, *Historical Report: Troop Movement Maps: Battle of First Manassas and Engagement at Blackburn's Ford*.

71 Schiable, *Fencelines, Fields, and Forests: Cultural Landscape Report,* 14.

72 Schiable, *Fencelines, Fields, and Forests: Cultural Landscape Report,* 14; and *War of the Rebellion,* 369-370.

73 Edwin Bearss, *Historical Report: Troop Movement Maps: Battle of First Manassas and Engagement at Blackburn's Ford* (US Department of the Interior, National Park Service, Manassas National Battlefield Park, 1981), 120-121.

74 Bearss, *Historical Report: Troop Movement Maps: Battle of First Manassas and Engagement at Blackburn's Ford*,108; cites Edward K. Gould, Major-General Hiram G. Berry... (Rockland, 1899), 62-63.

75 Bearss, *Historical Report: Troop Movement Maps: Battle of First Manassas and Engagement at Blackburn's Ford*,107-108.

76 Schiable, *Fencelines, Fields, and Forests: Cultural Landscape Report,* 14; and Bearss, *Historical Report: Troop Movement Maps: Battle of First Manassas and Engagement at Blackburn's Ford,* 96, 72-74, 81-82, 84-85, 96.

77 Schiable, *Fencelines, Fields, and Forests: Cultural Landscape Report,* 14

78 Oeschger, Chinn Ridge C*ultural Landscape Inventory,* 29-30.

79 Trieschmann, "Manassas Battlefield Historic District, Prince William County, Virginia." National Register of Historic Places Registration Form, 53.

80 Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 3-14; cites Edwin Bearss, *Historical Report: Troop Movement Maps: Battle of First Manassas and Engagement at Blackburn's Ford*.

81 Schiable, *Fencelines, Fields, and Forests: Cultural Landscape Report,* 16; Trieschmann, "Manassas Battlefield Historic District, Prince William County, Virginia." National Register of Historic Places Registration Form, 54-55.

82 Schiable, *Fencelines, Fields, and Forests: Cultural Landscape Report,* 16 .

83 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 30.

84 Quinn Evans Architects, *Unfinished Railroad Cultural Landscape Report,* 1.17; and Schiable, *Fencelines, Fields, and Forests: Cultural Landscape Report,*16-17.

85 Quinn Evans Architects, *Unfinished Railroad Cultural Landscape Report,* 1.17-1.18; and Schiable, *Fencelines, Fields, and Forests: Cultural Landscape Report,* 17-18.

86 John Hennessy, *Historical Report on the Troop Movements for the Second Battle of Manassas, August 28 through August 30, 1862* (US Department of the Interior, National Park Service, Denver Service Center, Northeast Team, 1985), 138; cites Bates, Pennsylvania Regiments, Vol. 1, p. 387.

87 Hennessy, *Historical Report on the Troop Movements for the Second Battle of Manassas,* 148; cites Leasure, 11 Address...," p. 157; Stevens, Stevens, pp. 450-51; Bates, Pennsylvania Regiments, Vol. 3, p. 556; Andrew J. Morrison to his Brother and Sister, September 22, 1862, Morrison Papers.

88 Hennessy, *Historical Report on the Troop Movements for the Second Battle of Manassas,* 138; cites Bates, Pennsylvania Regiments, Vol. 1, p. 387.

89 Hennessy, *Historical Report on the Troop Movements for the Second Battle of Manassas, 2*51.

90 Quinn Evans Architects, *Unfinished Railroad Cultural Landscape Report,* 1.18.

91 Quinn Evans Architects, *Unfinished Railroad Cultural Landscape Report,* 1.18.

92 Hennessy, *Historical Report on the Troop Movements for the Second Battle of Manassas,* 376

93 Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 3-15

94 Schiable, *Fencelines, Fields, and Forests: Cultural Landscape Report,* 20.

95 Hennessy, *Historical Report on the Troop Movements for the Second Battle of Manassas,* 371; cites Martin Hardin, *History of the Twelfth Regiment Pennsylvania Reserve Volunteer Corps* (New York, 1890), p. 100; Bates, *Pennsylvania Regiments*, Vol. I, p. 883.;

96 Hennessy, *Historical Report on the Troop Movements for the Second Battle of Manassas,* 365; cites McLean's report, ibid., p. 286; McLean to John C. Ropes, October 6, 1897, Ropes Papers.

97 Hennessy, *Historical Report on the Troop Movements for the Second Battle of Manassas,* 398-399; cites Erskine Carson to T. C. H. Smith, January 6, 1868, T. C. H. Smith Papers; Samuel B. Hurst, Journal History of the Seventy-third Ohio Volunteer Infantry (Chillicothe, 1866), p. 40.

98 Hennessy, *Historical Report on the Troop Movements for the Second Battle of Manassas,* 422-423; cites [Alexander Hunter], MS "Four Years in the Ranks," Virginia Historical Society, pp. 242-43; Alexander Hunter, Johnny Reb and Billy Yank (New York & Washington, 1905), pp. 248-49.

99 Hennessy, *Historical Report on the Troop Movements for the Second Battle of Manassas*, 437; cites Milroy to his Wife, September 5, 1862, Paulus, ed., Milroy Papers, Vol. I, p. 92; Milroy 1s report, op.cit., p. 3 21

100 Hennessy, *Historical Report on the Troop Movements for the Second Battle of Manassas*, 467-519.

101 Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 3-17.

102 W. G. Atkinson, *Map of the battle fields of Manassas and the surrounding region showing the various actions of the 21st July, 1861, between the armies of the Confederate States and the United States, 1861,* map, on file at Yale University Library, Beinecke Rare Book & Manuscript Library.

103 Joseph, *Northwest Quadrant Cultural Landscape Inventory*, 3-19 to 3-21.

104 Joseph, *Northwest Quadrant Cultural Landscape Inventory*, 3-19 to 3-21.

105 *Map of the battlefield of Bull Run, Virginia. Brig. Gen. Irvin McDowell commanding the U.S. forces, Gen. G [i.e. P.] T. Beauregard commanding the Confederate forces, July 21st 1861*, 1877, map, on file at Library of Congress.

106 Quinn Evans Architects, *Unfinished Railroad Cultural Landscape Report,* 1.27.

107 "Abstract of Title to a tract of parcel of land, lying and being situate at

Groveton...", Item 14, 01-158 John T. Hottel, MANA Property Records.

108 W. G. Atkinson, *Map of the battle fields of Manassas and the surrounding region showing the various actions of the 21st July, 1861.*

109 Hennessy, *Historical Report on the Troop Movements for the Second Battle of Manassas,* 398-399

110 Atkinson, *Map of the battle fields of Manassas and the surrounding region showing the various actions of the 21st July, 1861.*

111 Atkinson, *Map of the battle fields of Manassas and the surrounding region showing the various actions of the 21st July, 1861.*

112 Hennessy, *Historical Report on the Troop Movements for the Second Battle of Manassas, 328;* cites Letter of E. Allen to T. C. H. Smith, illegible date, Smith Papers; Erskine Carson to T.C.H. Smith, January 1, 1868, ibid.; unknown letter fragment, ibid.; McLean's report, O.R. Ser. I, Vol. XII, Pt. 2, p. 286; 73rd Ohio report, ibid., p. 292-293; 25th Ohio report, ibid., p. 290; 75th Ohio report, ibid., p. 294.

113 Atkinson, *Map of the battle fields of Manassas and the surrounding region showing the various actions of the 21st July, 1861.*

114 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 31; cites Alexandria Gazette, June 7, 1871; and Hazel Plain chain of title, pwcvirginia.com.

115 Atkinson, *Map of the battle fields of Manassas and the surrounding region showing the various actions of the 21st July, 1861.*

116 G.K. Warren, *Map of battle-grounds of August 28th, 29th, & 30th 1862 in the vicinity of Groveton, Prince William Co., Va.,* map, scale 1:21,120, U.S. Army, Engineer Department, 1878.

117 Bearss, *Historical Report: Troop Movement Maps: Battle of First Manassas and Engagement at Blackburn's Ford*, 96-97, 120-22; and Schiable, *Fencelines, Fields, and Forests: Cultural Landscape Report,* 12-20.

118 Hennessy, *Historical Report on the Troop Movements for the Second Battle of Manassas,* 422-423;

119 Quinn Evans Architects, *Unfinished Railroad Cultural Landscape Report,* 1.27-1.28.

120 Quinn Evans Architects, *Unfinished Railroad Cultural Landscape Report,* 1.27.

121 Joseph, *Northwest Quadrant Cultural Landscape Inventory*, 3-22; cites Henry Dogan Estate War Claim. Deposition by Andrew Redman. Southern Claims Commission, Prince William County, #21237 file No. 779 C.

122 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 31.

123 J.T. Trowbridge, *The South: A Tour of its Battlefields and Ruined Cities, A Journey Through the Desolated States and Talks With the People...* (1866), 84-85; quoted in Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 3-26.

124 "Bull Run. Dedication of Monuments," *The Evening Star*, June 12, 1865, 1:1; quoted in Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 3-22.

125 Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 3-17.

126 Joseph, *Northwest Quadrant Cultural Landscape Inventory*, 3-22; cites James Hamilton Eckenrode, *The Political History of Virginia During the Reconstruction* (Baltimore: Johns Hopkins University Press, 1904 [reprinted 1966, Peter Smith, Gloucester, MA],), 26.

127 Joseph, *Northwest Quadrant Cultural Landscape Inventory*, 3-22; cites Henry Dogan Estate War Claim. Deposition by Andrew Redman. Southern Claims Commission, Prince William County, #21237 file No. 779 C.

128 Joseph, *Northwest Quadrant Cultural Landscape Inventory*, 3-22; cites Henry

Dogan Estate War Claim. Deposition of John F. Dogan.

129 Joseph, *Northwest Quadrant Cultural Landscape Inventory*, 3-26; cites National Archives, Non-Population Schedules, Prince William County, VA, 1870.

130 "Abstract of Title to a tract of parcel of land, lying and being situate at Groveton...", 01-158 John T. Hottel, MANA Property Records.

131 Oeschger,, *Chinn Ridge Cultural Landscape Inventory*; cites Alexandria Gazette, June 7, 1871.

132 Oeschger, *Chinn Ridge Cultural Landscape Inventory*; cites pwcgov.org.

133 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 31-32.

134 Oeschger, *Chinn Ridge Cultural Landscape Inventory*; cites Alexandria Gazette, June 7, 2871; and Hazel Plain chain of title pwcvirginia.com. A building that is likely the tenant occupancy is shown on the rise near the Stone House intersection in the 1878 Warren map.

135 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 43-44.

136 Summary of 1870 agricultural census by Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 3-19; cites National Archives, Non-Population Schedules, Agricultural Census, Prince William County, VA, 1870.

137 Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 3-20; cites Elizabeth Brown Pryor, *Frying Pan Farm* (1979), 5.

138 Summary of 1880 agricultural census by Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 3-20; cites National Archives, Non-Population Schedules, Agricultural Census, Prince William County, VA, 1880.

139 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 31-32; cites 1880 Federal Census.

140 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 31-32.

141 White, *Rosefield Historic Resource Study,* 55; cites Turner. Burial Index, 1800-2001, 91.

142 White, *Rosefield Historic Resource Study,* 55; cites PWC Deed Book 31:459, microfilm.

143 White, *Rosefield Historic Resource Study,* 58; cites PWC Deed Book 33:342, microfilm.

144 White, *Rosefield Historic Resource Study,* 58; cites PWC Deed Book 39:572-573, microfilm.

145 White, *Rosefield Historic Resource Study,* 60; cites PWC Will Book U: 272-274, microfilm.

146 Map of 1904 Army maneuvers, Prince William County RELIC Online.

147 Ronald Ray Turner, *Prince William County Obituaries, 1900-1930* (Manassas, Virginia, 1996), 66.

148 Ron Turner and Howard Thompson, "Prince William County Cemetery Register Form, Compton or Davis Cemetery," 1996, accessed December 2017, http://www.pwcvirginia.com/Cemeteries1.htm; and Historic Prince William, "Compton/Davis Family Cemetery record," included in Saint Martin's Episcopal Church, "The Herald," April 2012, on file at Manassas National Battlefield Park.

149 Tish Como, "Effects of the 1904 Army Maneuvers on the Greater Manassas Community," Prince William County RELIC, accessed December 2017, http://eservice.pwcgov.org/library/digitalLibrary/Map-1904/PWR_1-2010.pdf.

150 Quinn Evans Architects, *Unfinished Railroad Cultural Landscape Report,* 1.39; and Zenzen, *Battling for Manassas: The Fifty-Year Preservation Struggle at Manassas National Battlefield Park,* Chapter 1.

151 "7th Georgia Regiment Position Markers at Manassas National Battlefield Park," undated manuscript on file at Manassas National Battlefield Park; and Gregory Wolf, "The Hidden Marker for the 7th Georgia Infantry," American Battlefields Trust, accessed December 2017, https://www.civilwar.org/learn/articles/hidden-marker-7th-georgia-infantry.

152 Marietta (Ga.) Journal, June 29, 1905.

153 "7th Georgia Regiment Position Markers at Manassas National Battlefield Park," undated manuscript on file at Manassas National Battlefield Park; and Gregory Wolf, "The Hidden Marker for the 7th Georgia Infantry," American Battlefields Trust, accessed December 2017, https://www.civilwar.org/learn/articles/hidden-marker-7th-georgia-infantry.

154 Laws of New York, 1906, chapter 667; Laws of New York, chapter 666; and Laws of New York, 1905, chapter 671; cited by Peter W. Ostrander, *Story of the Dedication of the Monument to the Memory of the Members of the "Fourteenth Brooklyn" Regiment, who fell on the Bull-Run battles' field*, Fourteenth Regiment War Veterans' Association, 1907, on file at Manassas National Battlefield Park, 5.

155 Ostrander, *Story of the Dedication of the Monument to the Memory of the Members of the "Fourteenth Brooklyn" Regiment, who fell on the Bull-Run battles' field*; and Zenzen, *Battling for Manassas*, Chapter 1.

156 Col. Fletcher Webster Monument plaque; and Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 3-24, 3-25, 4-48.

157 1937 aerial photograph, MANA Archives.

158 White, *Rosefield Historic Resource Study,* 63; cites PWC Deed Book 62:135-136, W.R.E. Cross to Thomas Moss: PWC Deed Book 70:151-152, Cross to John F. Dogan, microfilm; PWC Deed Book 73:40, Thomas E. Moss to J.L. Sowers, microfilm; PWC Land Tax 1920-1921, Library of Virginia, Archives ; and PWC Will Book Z:282-284, microfilm.

159 "Abstract of Title to a tract of parcel of land, lying and being situate at Groveton..." 01-158 John T. Hottel, MANA Property Records.

160 "Abstract of Title to a tract of parcel of land, lying and being situate at Groveton...", Items 16 and 17, 01-158 John T. Hottel, MANA Property Records.

161 "Abstract of Title to a tract of parcel of land, lying and being situate at Groveton...", Item 19, 01-158 John T. Hottel, MANA Property Records.

162 Bull Run Battlefield Recreational Demonstration Project, Approximate Size, Shape, and Location of Properties Under Offer, 1935, on file at Manassas National Battlefield Park.

163 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 42.

164 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 51; cites Commissioner of Patents for the Year 1902, accessed 6/20/2016, https://books.google.com/books?id=wsA_AQAAMAAJ&pg=PA800&lpg=PA800&dq=etter+pump+507&source=bl&ots=HeHSc5wOQt&sig=1_vmUHc-qdjyss98y0iaA2VQ11M&hl=en&sa=X&ved=0ahUKEwj-tday6bbNAhWKJh4KHcbYBsIQ6AEIRTAI#v=onepage&q=etter%20pump%20507&f=false

165 Joseph, *Northwest Quadrant Cultural Landscape Inventory*, 3-34; cites *Prince William: The Story of Its People and Places* (Writers Program of the Work Projects Administration in the State of Virginia, The Bethlehem Good Housekeeping Club, 1941), 68.

166 Zenzen, *Battling for Manassas,* Chapter 2.

167 Zenzen, *Battling for Manassas,* Chapter 2b.

168 Zenzen, *Battling for Manassas,* Chapter 2b.

169 Zenzen, *Battling for Manassas,* Chapter 2b-2c.

170 Zenzen, *Battling for Manassas,* Chapter 2b-2c.

171 *Final Report, Bull Run Battlefield Recreational Demonstration Project, Virginia R-6, Manassas, Virginia* (US Department of the Interior, National Park Service, 1935).

172 Oeschger, *Chinn Ridge Cultural Landscape Inventory*; cites PWC Deed 14065.

173 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 32; cites McGarry, 1981

174 Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 4-87; cites Workers Progress Administration, 1936, WPA files, MANA files.

175 Oeschger, Chinn Ridge C*ultural Landscape Inventory,* 43.

176 McGarry, *An Archeological Survey of Selected Portions of Manassas National Battlefield Park*, 35

177 *Structural Bracing for the Chinn House*, drawing, Department of the Interior, National Park Service, Recreational Demonstration Projects, 1937, on file at NPS TIC.

178 *Sketches Showing Location and Nature of Damages Requiring Emergency Measures*, drawing, Department of the Interior, National Park Service, Recreational Demonstration Projects, 1936, on file at NPS TIC.

179 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 35-36; cites Parsons CLI 1996:4.27, 4.79, 4.83

180 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 33; cites Zenzen 1998:21

181 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 33.

182 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 33; cites Thomas et. al., *Manassas National Battlefield Park Natural Resource Condition Assessment Summary*, 1

183 *General Development Plan, Part of the Master Plan for Manassas National Battlefield Park,* 1941, on file at MANA Archives.

184 Zenzen, *Battling for Manassas*, Chapter 4b; cites Francis F. Wilshin to Superintendent, 25 March 1948, 2, file 620 Buildings Chinn House, box 2596C, entry 7, RG 79, NARA; Wilshin to Regional Director, Southeast Regional Office (SERO), 28 October 1968, file Chinn House, Chinn Family History, Historian's Files, MNBP.

185 Zenzen, *Battling for Manassas*, Chapter 4b; cites Francis F. Wilshin to Superintendent, 25 March 1948, 2; Wilshin to Regional Director, SERO, 28 October 1968, both in file 620 Buildings Chinn House, box 2596C, entry 7, RG 79, NARA.

186 Wilshin, memorandum, 1948, MANA Archives.

187 Zenzen, *Battling for Manassas*, Chapter 4b; cites Francis F. Wilshin to Superintendent, 25 March 1948, 2; Wilshin to Regional Director, SERO, 28 October 1948, both in file 620 Buildings Chinn House, box 2596C, entry 7, RG 79, NARA.

188 Zenzen, *Battling for Manassas*, Chapter 4a ; cites Arthur McGlothlin to Charles Stevenson, 1 June 1951; James B. Myers to Regional Director, Region 1, 30 November 1951; Conrad Wirth to Regional Director, Region 1, 2 June 1952; Wirth to James Evans, 11 August 1952, all in file Monuments and Markers N.Y. Monuments and Land Acquisition, Historian's Files, MNBP.

189 Jim Burgess, Museum Specialist at Manassas National Battlefield Park, email communication with author, May 2018.

190 Zenzen, *Battling for Manassas*, Chapter 4a ; cites Arthur McGlothlin to Charles Stevenson, 1 June 1951; James B. Myers to Regional Director, Region 1, 30 November 1951; Conrad Wirth to Regional Director, Region 1, 2 June 1952; Wirth to James Evans, 11 August 1952, all in file Monuments and Markers N.Y. Monuments and Land Acquisition, Historian's Files, MNBP.

191 Zenzen, *Battling for Manassas*, Chapter 4a; cites Thomas Allen to Superintendent,

Fredericksburg and Spotsylvania County National Military Park, 2 February 1945; Joseph Mills Hanson to E. M. Lisle, 4 October 1945; Hanson to Regional Director, Region 1, 9 December 1946; Hanson to Coordinating Superintendent, 9 August 1947; Hanson to Coordinating Superintendent, 14 August 1947, all in file Monuments and Markers N.Y. Monuments and Land Acquisition, Historian's Files, MNBP. According to the land ownership records at the park, Rush W. Boyer conducted an appraisal in 1946 for the Hottel and individual home tracts. See Land Ownership Records Manassas, MNBP Land Holding Records, Headquarters Files, MNBP.

192 Zenzen, *Battling for Manassas*, Chapter 4a; cites Thomas Allen to Superintendent, Fredericksburg and Spotsylvania County National Military Park, 2 February 1945; Joseph Mills Hanson to E. M. Lisle, 4 October 1945; Hanson to Regional Director, Region 1, 9 December 1946; Hanson to Coordinating Superintendent, 9 August 1947; Hanson to Coordinating Superintendent, 14 August 1947, all in file Monuments and Markers N.Y. Monuments and Land Acquisition, Historian's Files, MNBP. According to the land ownership records at the park, Rush W. Boyer conducted an appraisal in 1946 for the Hottel and individual home tracts. See Land Ownership Records Manassas, MNBP Land Holding Records, Headquarters Files, MNBP.

193 Zenzen, *Battling for Manassas*, Chapter 4a; cites Joseph Mills Hanson to Coordinating Superintendent, 9 August 1947, 1; Raleigh C. Taylor to Hiram Duryea, 21 October 1940; Taylor to the Adjutant General State of New York, 1 November 1940, all in file Monuments and Markers N.Y. Monuments and Land Acquisition, Historian's Files, MNBP.

194 Zenzen, *Battling for Manassas*, Chapter 4a ; cites Arthur McLoughlin to Charles Stevenson, 1 June 1951; James B. Myers to Regional Director, Region 1, 30 November 1951; Conrad Wirth to Regional Director, Region 1, 2 June 1952; Wirth to James Evans, 11 August 1952, all in file Monuments and Markers N.Y. Monuments and Land Acquisition, Historian's Files, MNBP.

195 Zenzen, *Battling for Manassas*, Chapter 4a; cites Conrad Wirth to James Evans, 15 February 1950, and Harold L. Peterson, "Draft of Speech for Senator Ives," 1 March 1949; Newton Drury to Charles Stevenson, 15 May 1950, all on file MNBP N.Y. Monuments 1949-1957, NPS History Division Files; Conrad Wirth to Regional Director, Region 1, 18 May 1950, "New York State Monuments and Possible Land Acquisition at Manassas"; James Evans to Arthur McLoughlin, 15 August 1950, both in file Monuments and Markers N.Y. Monuments and Land Acquisition Historian's Files, MNBP; Sarles, "Short History," 19.

196 Trieschmann, "Manassas Battlefield Historic District, Prince William County, Virginia." National Register of Historic Places Registration Form, 67.

197 Zenzen, *Battling for Manassas*, Chapter 4d ; cites P.L. 338.

198 Zenzen, *Battling for Manassas*, Chapter 4d ; cites Land ownership records for Hottel tract, 2 November 1953; Patterson tract, 7 February 1955; Early tract, 19 December 1955; Hottel tract, 13 January 1956, all in Land Ownership Records Manassas, MNBP Land Holding Records, Headquarters Files, MNBP.

199 Zenzen, *Battling for Manassas*, Chapter 5c; cites Wilshin, interview, 56-57; Elbert Cox to the Director, 19 March 1957, file Manassas Correspondence 1949-57, NPS History Division Files; "Francis Wilshin," Journal Messenger (Manassas), 7 March 1957, file Park History I-66 Road Placement, Historian's Files, MNBP.

200 Zenzen, *Battling for Manassas*, Chapter 5c; cites "Highway Invasion Ignites New Battle of Manassas," Evening Star (Washington, D.C.), 13 March 1957; Muriel Guinn, "Virginia Freeway Plan Draws Fire," Washington Post and Times Herald, 13 March 1957; "Interstate Route Meets Opposition at Manassas," Richmond Times-Dispatch, 13 March 1957; "Strong Opposition Accorded Proposed 29-211 Highway Link," Journal Messenger (Manassas), 14 March 1957, all in file Park History I-66 Road Placement, Historian's Collection, MNBP; Elbert Cox to the Director, 19 March 1957, file Manassas Correspondence 1949-57, NPS History Division Filet.

201 Zenzen, *Battling for Manassas*, Chapter 5c; cites Francis F. Wilshin to Regional Director, Region 1, 16 January 1958, file D30 Manassas 1957, box 1, acc. 68A-2955, WNRC; Wilshin, interview, 59-60.

202 Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 3-31.

203 Zenzen, *Battling for Manassas*, Chapter 5f; cites "Remarks by Conrad L. Wirth Director, National Park Service, at the Re-Enactment of the First Battle of Manassas at Manassas National Battlefield Park, Virginia, July 22, 1961," Department of the Interior press release, 22 July 1961, box MANA, NPS History Collection, HFC; Conrad Wirth to Regional Director, Regions 1, 14 August 1961, "Re-enactment of Civil War and Other Battles," file Manassas Correspondence 1958-61, NPS History Division Files Bodnar, Remaking America, 214-15.

204 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 33-34; cites Zenzen, *Battling for Manassas,* 83. Note that this quote refers to Henry Hill.

205 Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 4-88; cites Steadman letter, 1967, MANA files.

206 Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 4-88; cites Steadman letter, 1967, MANA files.

207 Jim Burgess, Museum Specialist at Manassas National Battlefield Park, included in National Park Service, *Chinn Ridge Cultural Landscape Inventory*.

208 Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*; cites Wilshin, 1967.

209 Zenzen, *Battling for Manassas*, Chapter 8c; cites Public Law 96-442, 96th Cong., 2d sess., 13 October 1980, An Act to Amend the Act Entitled "An Act to Preserve Within Manassas National Battlefield Park, Virginia, the Most Important Historic Properties Relating to the Battle of Manassas, and for Other Purposes," approved April 17, 1954; Regional Director, National Capital Region, to Superintendent, Manassas Battlefield Park, 9 January 1981, "Activation of Public Law 96-442 Expanding Manassas Battlefield Park," 4, file Land Acquisition Plan-MANA, NCR Land Use Files; Senate Committee, Manassas National Battlefield Park, Virginia, 52-53,70.

210 Trieschmann, "Manassas Battlefield Historic District, Prince William County, Virginia." National Register of Historic Places Registration Form, Trieschmann, 8.

211 Ron Turner and Howard Thompson, "Prince William County Cemetery Register Form, Compton or Davis Cemetery," 1996, accessed December 2017, http://www.pwcvirginia.com/Cemeteries1.htm; and Historic Prince William, "Compton/Davis Family Cemetery record," included in Saint Martin's Episcopal Church, "The Herald," April 2012, on file at Manassas National Battlefield Park.

212 Jim Burgess, Museum Specialist, Manassas National Battlefield Park, personal communication with author, January 2018.

213 Jim Burgess, Museum Specialist at Manassas National Battlefield Park, email correspondence with author, January 2018.

214 Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 4-17.

215 Zenzen, *Battling for Manassas*, Chapter 9a; cites Edwin C. Bearss to Associate Director, Cultural Resources, 12 October 1983, "Field Trip to Manassas National Battlefield Park," 3, unlabeled folder, NPS History Division Files; Swain, interview, 19; [Rolland R. Swain], "Superintendent's Annual Report," 1986, 4, Reading File 1987, MNBP.

216 Trieschmann, "Manassas Battlefield Historic District, Prince William County, Virginia." National Register of Historic Places Registration Form.

217 McGarry, *Manassas Historic Sites Survey*.

218 Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 4.39-4.42

219 Reeves et. al., *Phase I and II Cultural Resource Investigation and Site Examination of Proposed Intersection Improvements at Routes 29 and 234.*

220 Reeves et. al., *Phase I and II Cultural Resource Investigation and Site Examination of Proposed Intersection Improvements at Routes 29 and 234,* 103-106.

221 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 34.

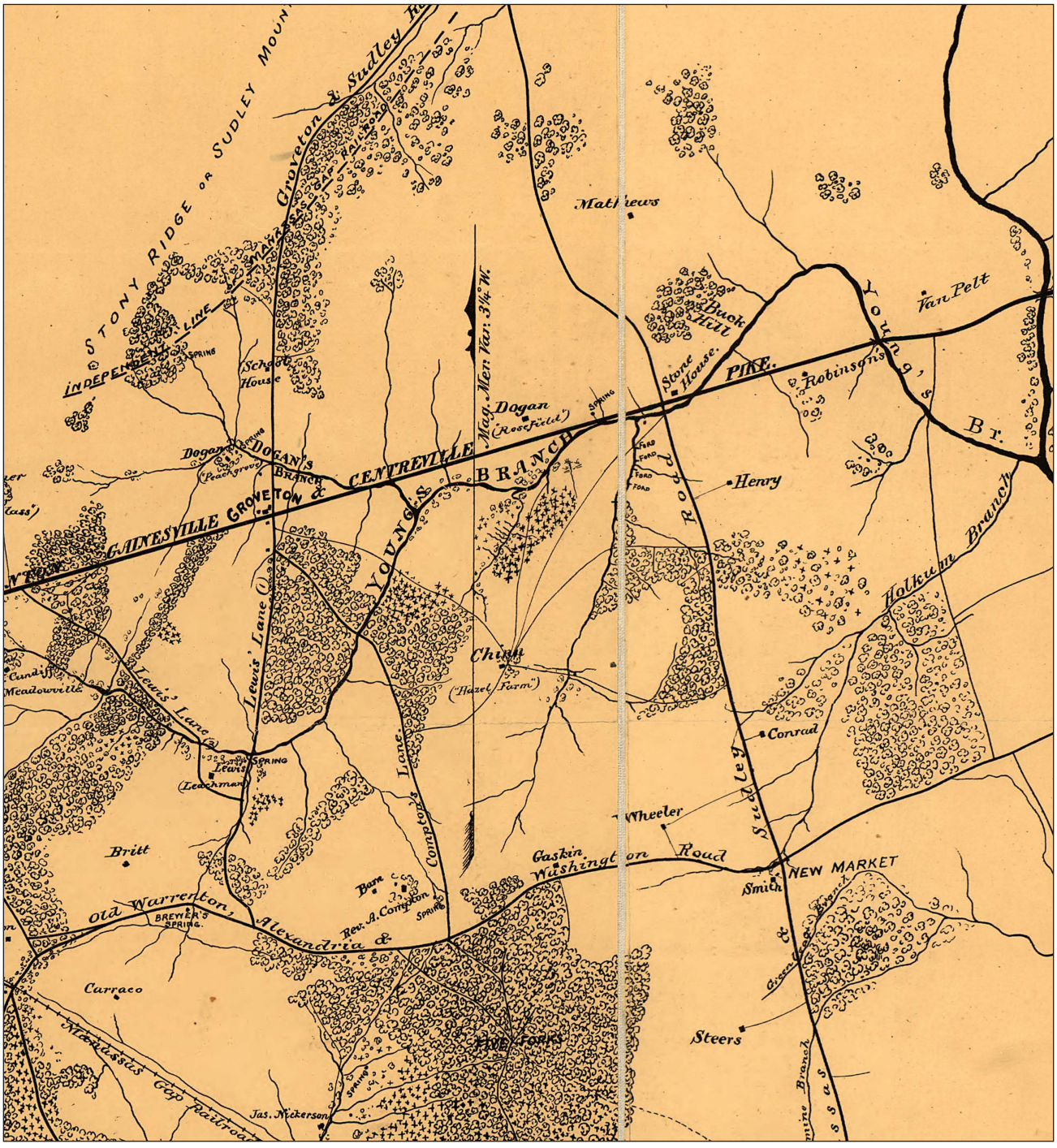
222 Ray Brown, interview with author, March, 2018.

223 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 39.

224 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 34.

225 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 53.

226 Ray Brown, interview with author, October 2017.



Existing Condition & Landscape Analysis

Chapter 3

Chapter title page: Excerpt of *Warren map*, 1878 (Library of Congress).

Chapter 3: Existing Condition & Landscape Analysis

This chapter documents the existing condition of the Chinn Ridge landscape and provides an analysis of landscape integrity of the cultural landscape.

A site survey was conducted in October 2017 to record conditions within the 752-acre study area. Plan drawings illustrating existing conditions at the site are included at the end of this chapter. Plan drawings consist of sheets EC-1 through EC-7, containing the following information:

EC-1: Study Area Existing Condition (1"=800')
EC-2: Drawing Key Plan (1"=800')
EC-3: New York Monuments Area Existing Condition ((1"=300')
EC-4: 14th Brooklyn Monument Existing Condition (1"=50')
EC-5: 5th and 10th New York Monuments Existing Condition (1"=30')
EC-6: Chinn Farm Existing Condition (1"=200')
EC-7: Maintenance Area Existing Condition (1"=200')

The 2016 Chinn Ridge Cultural Landscape Inventory (Draft) provides useful information regarding existing conditions in the Chinn Farm area, which has been incorporated in to this section of the report. Geographic Information Systems (GIS) data provided by Manassas National Battlefield Park and NPS-National Capital Region Lands GIS Office was also used to produce the existing conditions drawings.

The analysis identifies those qualities and features that retain integrity, and contribute to the significance of the landscape. Evaluation of the physical integrity of the cultural landscape is based on a comparison of current conditions to those present during the three periods of significance: plantation agriculture (1769-1860), the Civil War landscape (1861-1865), and the Civil War memorialization/ commemoration landscape (1905-1940).

Analysis within the chapter is organized according to eleven landscape characteristics. Landscape characteristics are the tangible and intangible characteristics of a landscape that define and characterize the landscape and that, individually and collectively, give a landscape character and aid in understanding

its cultural value.[1] Definitions of the individual landscape characteristics are provided in the terminology appendix of this report.

SUMMARY OF INTEGRITY

Integrity is the ability of a property to convey its significance, or how well the physical features of a property relate to its historical significance. To establish this, it must be determined if the property retains the identity for which it is significant. The U.S. Secretary of the Interior identifies seven aspects or qualities that make up integrity: location, design, setting, materials, workmanship, feeling, and association. Definitions of the aspects of integrity are provided in the terminology appendix of this report.

The Chinn Ridge cultural landscape retains integrity to the three periods of significance, 1769-1860, 1861-1865 and 1905-1940. The landscape represents the conditions of early agricultural practices, the First and Second Battles of Manassas, and memorialization and commemoration efforts. Some losses to integrity have occurred due to the removal of structures, the encroachment of woody vegetation, and the subsequent loss of views and vistas. In addition to views, contemporary land uses and noise from roads and commercial development somewhat impact the setting of the cultural landscape.

Location

The study area cultural landscape continues to occupy its historic location. The major features of the site that led to its selection as the location of two plantations and influenced military actions at the First and Second Battles of Manassas have not been significantly modified. Commemorative features are retained in their original locations.

Design

Design is the combination of elements that create the form, plan, space, structure, and style of a property. Prior to the Civil War, the two farms that occupied the study area were laid out to maximize agricultural production, taking advantage of the hills and ridges to provide expansive views over the rolling topography. In particular, the Chinn Farm (Hazel Plain) was designed to impose order on the landscape according to the dictates of the Georgian mode. The arrangement of the pre-Civil War Chinn House in relation to the battlefield remains, although the house has been reduced to its foundation. Archeological remnants of other outbuildings identified in a 1981 study by Thomas McGarry are not present above ground, however the locations of missing features including structures and fencelines can be identified by depressions and clusters of trees. Due to the loss of

most of the above-ground features dating to the periods of significance, integrity of design has been lost within the Chinn Farm area.

The New York Monuments Area retains integrity of design related to the period of commemoration. The three memorials, associated fences, and the 5th New York gate dating to the commemorative period are extant.

Setting

Setting is the physical environment of a cultural landscape. The study area is located within the core of Manassas National Battlefield Park, which has limited modern development in the immediate vicinity. Portions of the landscape continue to be used as agricultural fields and woodland, although the locations, extent, and distribution of fields and woods have changed. The agricultural setting and relationship to nearby historic buildings and monuments has been largely retained. Overall, the study area retains integrity of setting.

Impacts to the setting of the cultural landscape include successional growth of woody vegetation, encroaching development, and heavy commuter traffic. Outside of the immediate vicinity of the study area, land use has shifted in recent decades from a predominantly rural landscape with a moderate level of housing development to a surge in housing and commercial development. This development has been accompanied by heavy commuter traffic along Lee Highway (Route 29) and Sudley Road (Route 234). While this development is largely screened from view by successional vegetation along Chinn Ridge, traffic is highly visible and audible from other portions of the study area, particularly the New York Monuments area and the trails along the eastern side of the study area.

Within the Chinn Farm area, the garden associated with the farm is no longer extant, and the agricultural fields to the east, south, and west the Chinn House have been partially wooded with successional pine forest. While in general the expansion of woodland within the study area impacts the setting, portions of these forests also serve to screen modern development and heavy traffic along Lee Highway (Route 29), Sudley Road (Route 234), and Interstate 66 from view within the study area.

Materials and Workmanship

Materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property. Within the study area, materials are closely related to the aspect of workmanship, which is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.

In the Chinn Farm area, the materials of the stone foundation of the Chinn House, the stone wall of the Hooe Family Cemetery, the brick cistern and well, the sandstone-faced culverts associated with North and South Chinn Drive, and the stone and brick Col. Fletcher Webster Monument survive. In the New York Monuments area, the three granite monuments, their associated iron fences, and the decorative iron 5th New York Gate survive. These features retain integrity of materials.

However, many of the other buildings and features that defined the character of the study area during agricultural development and the Battles of First and Second Manassas are no longer present. None of the farm buildings are extant. Due to the temporary nature of wood fences, none of the historic fences that played an integral role in defining spaces within the study area are present, although efforts have been made to reconstruct some of them.

The materials that retain integrity within the study area cultural landscape and show a high level of skill and professional workmanship are the stone foundation of the Chinn House, the stone wall of the Hooe family cemetery, the sandstone-faced culverts built by the Works Progress Administration, the three New York Monuments and associated fences, and the Fletcher Webster monument. Workmanship within the study area retains integrity.

Feeling

Feeling is a property's expression of the aesthetic or historic sense of a particular period of time. As there are three periods of significance for this landscape, feeling can be assessed for each period. Despite loss of farm building and activities, the feeling of the early farms retains integrity due to the presence of broad landscape patterns that relate to the conditions present during the agricultural development period from 1769-1860. It was within this rural landscape that the First and Second Battles of Manassas occurred. Although many features that would have been present on the landscape during the battles are now missing, the presence of farm roads, field systems, woodlots, fences, and remnants of domestic structures combine to convey the feeling of the battlefield. The solemn, quiet character of the current landscape is consistent with the commemoration and memorialization of the tragic battles. The study area retains integrity of feeling related to all three periods of significance.

Association

Association is the direct link between the important historic event or person and a cultural landscape. Despite the loss of the buildings and fences and the encroachment of woody vegetation, the study area retains a strong association between the existing landscape and all three periods of significance.

CONTRIBUTING FEATURES

Features that contribute to the historic character of the cultural landscape include significant individual elements and physical characteristics remaining from the three periods of significance, 1769-1860, 1861-1865, and 1905-1940. These are identified in association with the landscape characteristics they represent: natural systems and topography; land use; spatial organization; buildings and structures; circulation; constructed water features; small-scale features; vegetation; views and vistas; and archeological sites.

Non-contributing features are recent additions (constructed or emerging after 1940) that do not embody the historic character of the cultural landscape. Examples include recent buildings and structures, degree of vegetation enclosure, signs, and small-scale features. Non-contributing features (those that were not present during the historical period) may be considered "compatible" when they fit within the physical context of the historic period and do not impact the historic integrity of the property. Incompatible features are those that are not harmonious with the quality of the cultural landscape and, by virtue of their existence, can lessen the historic character.

Within the tables in the following sections, features are noted with a "C" for contributing, "NC-C" for non-contributing compatible, "NC" for non-contributing, or "M" for missing.

Natural Systems and Topography

- Chinn Ridge
- Ridge occupied by maintenance facilities (Bald Hill)
- Ridge occupied by 14th Brooklyn Monument
- Ridge occupied by 5th and 10th New York Monuments
- Deeply cut stream valleys
- Soils suitable for agricultural production
- Youngs Branch
- Chinn Branch
- Dogan Branch
- Intermittent streams
- Chinn spring

Land Use

- Agricultural (hay lease)
- Commemoration

Spatial Organization

- Open areas of fields juxtaposed with dense woodlands
- Formal organization of Chinn Farm (Hazel Plain) plantation
- Cluster of three monuments at New York Monuments area

Buildings and Structures

- Chinn House foundation (LCS ID: 000890)
- Maintenance Storage Building

Circulation

- Portions of Sudley Road*
- Lee Highway*
- Groveton Road*
- New York Avenue
- North Chinn Drive
- South Chinn Drive
- Maintenance Access Road
- Portions of Second Manassas Trail
- Chinn Ridge Trail
- Compton's Lane
- Sudley Road Grade

Constructed Water Features

- Chinn House Cistern
- Chinn House Well
- Chinn Spring
- Check dams
- Culverts on North Chinn Drive
- Culverts on South Chinn Drive

Small-scale features

- Fletcher Webster Monument (LCS ID: 010792)
- 14th Brooklyn Monument (LCS ID: 000894, fence 451410)
- 5th New York Monument (LCS ID: 000895, fence 451336)
- 10th New York Monument (LCS ID: 000896, fence 451337)
- 5th New York Gate (LCS ID: 010784)

Vegetation

- Native grassland/meadow
- Oak Hickory Forest
- Floodplain forest
- Individual trees at Chinn House

Views and Vistas

- View along Chinn Ridge
- View from 14th Brooklyn Monument to Groveton

Archeological Sites

- Remnants of Chinn Plantation/Hazel Plain estate including sites of plantation house, carriage house, cluster of outbuildings, stables, icehouse or springhouse, root cellar, check dams, unconfirmed slave cemetery, and other outbuildings of undetermined use
- Hooe Cemetery (LCS ID: gravestones 010791, wall 451529)
- Hooe Dependency Site
- Compton/Davis Family Cemetery (outside boundary)
- Late 19th century domestic sites located west of Chinn Branch
- Four (4) Indigenous occupation sites located on the east and west sides of Chinn Branch

* Feature not owned by NPS

EXISTING CONDITION & ANALYSIS

This section describes the existing condition of the Chinn Ridge landscape, documenting the features associated with the historic plantations, the First and Second Manassas battles, and commemoration and memorialization of the battlefield. The existing condition of the study area is assessed according to these landscape characteristics:

- Natural Systems and Topography
- Land Use
- Spatial Organization
- Buildings and Structures
- Circulation
- Constructed Water Features
- Small-Scale Features
- Vegetation
- View and Vistas
- Archeological Sites

NATURAL SYSTEMS AND TOPOGRAPHY

Natural Systems and Topography Existing Condition

Existing natural systems and topography is illustrated on drawings EC-1 through EC-7.

Geology

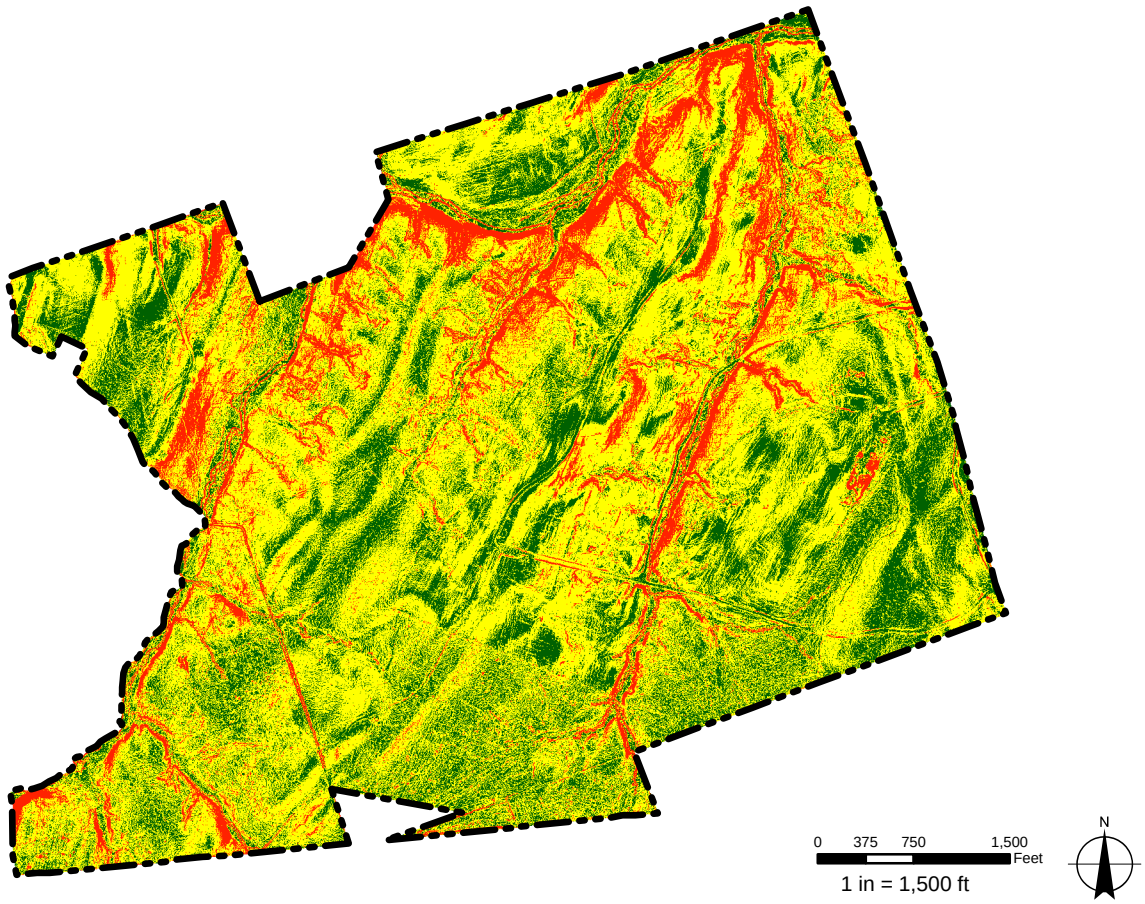
The Chinn Ridge cultural landscape is located in the eastern Piedmont physiographic province, extending from the fall line on the eastern side of the state to the Blue Ridge mountains in the center of the state. The geology of the park consists of a series of metamorphosed rock including slate, gneiss, schist, phyllite, serpentine, marble, granite, and gabbro. The eastern portion of the battlefield park, including the study area, is underlain by the Groveton Member of the Bull Run Formation, a red to purple-brown, iron rich, sedimentary geologic formation composed of micaceous siltstone and sandstone interbeded with gray shales. The Bull Run Formation was formed during the Triassic period, and includes some fossils preserved during deposition. These rocks have undergone extensive weathering, producing the distinctive red-brown soils within the park.[2]

Topography

The topography of the study area, like that of the surrounding Manassas National Battlefield Park landscape, is characterized by rolling hills, ridges, and steeply cut stream channels. Several distinct ridges extend northeast-southwest within the study area, including Chinn Ridge; a parallel ridge to the southeast sometimes referred to as Bald Hill;, and two parallel ridges to the north currently occupied by the New York Monuments. These ridges are formed in areas where stronger, more erosion-resistant igneous and metamorphic rocks are located below the ground surface.[3] The elevation within the study area ranges from a high of approximately 290 feet at Chinn Ridge to a low of approximately 180 feet where Youngs Branch passes beneath Sudley Road.

Figure 3-1 illustrates the range of slopes present within the study area. Gentle slopes are identified as those below 8.5%. Within these areas, the ground surface is easily mown, and accessible routes can be provided on-grade through sloped walks or ramps. Gentle slopes are typically located on the flat tops of ridges or within the floodplain. Moderate slopes are identified as those between 8.5% and 30%. These slopes, which typically occur on ridge slopes, may be stabilized with grasses and mown with conventional equipment. Steep slopes greater than 30%, particularly at Chinn Ridge, are vulnerable to landslides and debris flows. These risks are compounded by high levels of precipitation, undercutting of slopes by roads and trails, and lack of stabilizing vegetation.[4]

Figure 3-1. Slopes



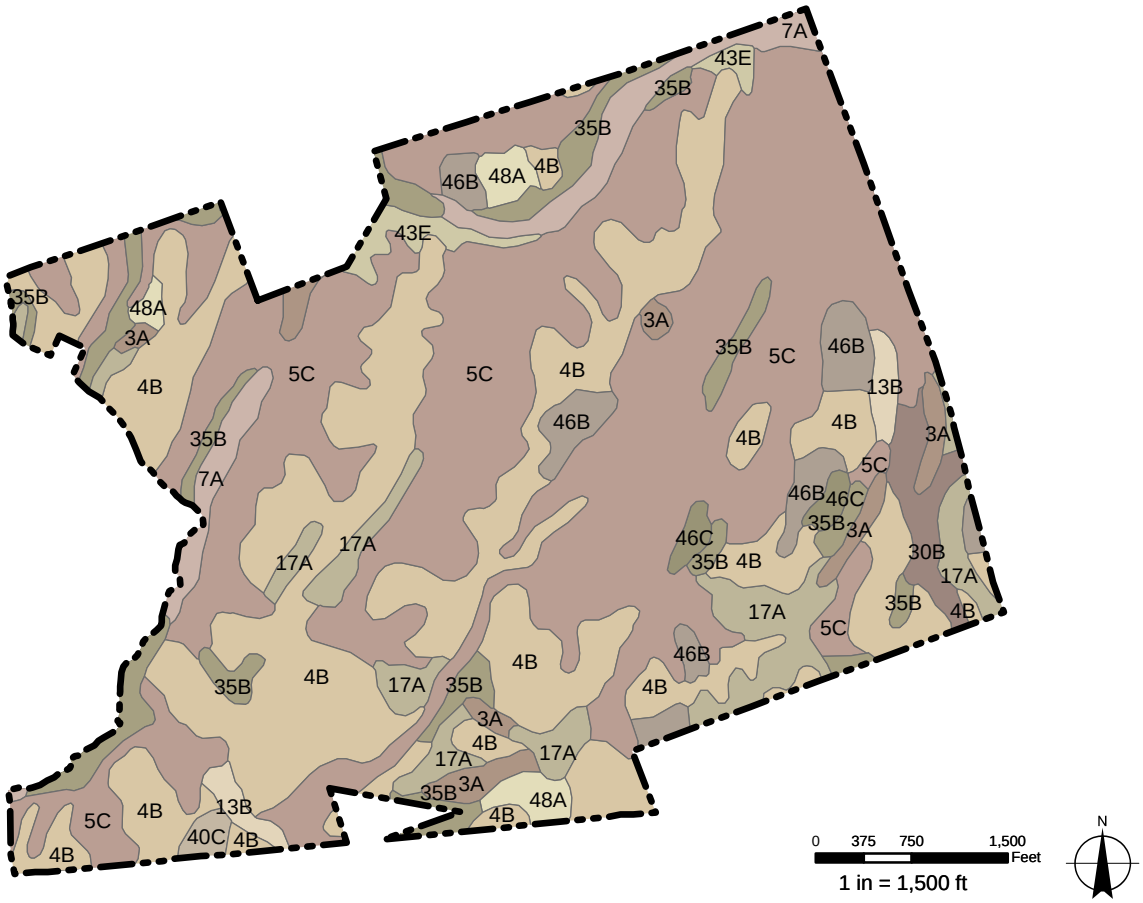
Legend

- Chinn Ridge CLR study area boundary
- 0 - 8.5% Slope angle
- 8.5 - 25% Slope angle
- > 25% Slope angle

Notes and Sources

1. MNBP GIS Data Archives: 2012 LIDAR

Figure 3-2. Study area soils



Legend

- Chinn Ridge CLR study area boundary
- 7A Bermudian silt loam, 0 to 2 percent slopes
- 13B Catlett-Sycoline complex, 2 to 7 percent slopes
- 17A Dulles silt loam, 0 to 2 percent slopes
- 30B Jackland silt loam, 2 to 7 percent slopes
- 35B Manassas silt loam, 2 to 7 percent slopes
- 3A Albano silt loam, 0 to 4 percent slopes
- 40C Montalto silty clay loam, 7 to 15 percent slopes
- 43E Nestoria gravelly silt loam, 25 to 50 percent slopes
- 46B Panorama silt loam, 2 to 7 percent slopes
- 46C Panorama silt loam, 7 to 15 percent slopes
- 48A Reaville silt loam, 0 to 4 percent slopes
- 4B Arcola silt loam, 2 to 7 percent slopes
- 5C Arcola-Nestoria complex, 7 to 15 percent slopes
- 54B Urban land-Udorthents complex, 0 to 7 percent slopes

Notes and Sources

1. U.S. Department of Agriculture, Natural Resources, Conservation Service: Soil Survey Geographic (SSURGO) database for Prince William County, Virginia, 10/05/2017

Soils

The 2017 Chinn Ridge CLI describes the general soil types within Manassas National Battlefield Park:

> Soils in the park are generally strongly acidic, well-drained loams. In the western half of the park, igneous dikes and sills of diabase have intruded the sedimentary rocks. Soils derived from diabase are typically loamy, very rich in clay minerals, and have limited permeability. These diabase-derived soils support many rare grassland species, and the other soils in the park support eight different types of forest.[5]

Soils within the study area are primarily of Arcola and Nestoria units. These soils are typically moderately deep to shallow soils that are well drained and have loamy subsoil. The soils contain a few rock fragments consisting largely of partially weathered siltstone and sandstone and in places rounded quartz gravel. These soils are moderately well suited to cultivated crops and small grains, and well suited to grasses and legumes.[6] Landscape and trail erosion been exacerbated by highly erodible soils in some portions of the park. Soil units are depicted on Figure 3-2.

Waterbodies

Waterbodies within the study area include springs, creeks, intermittent streams, and associated floodplains. All of the water systems contribute to Bull Run, a 32.8 mile-long free-flowing tributary stream of the Potomac River that originates from a spring in the Bull Run Mountains and flows south to the Occoquan River. The study area is within the Chesapeake Bay watershed.

Youngs Branch carves a deep, narrow stream valley through the study area, flowing east to Bull Run. As of 2018, Youngs Branch annually dries out. Chinn Branch and Dogan Branch, tributaries of Young Branch, join with the larger stream within the study area, as well as numerous other intermittent streams. The porous character of the underlying rock formations supports numerous seeps and springs.

Stream bank erosion has occurred due to increasing runoff from adjacent development and more frequent and severe flood events. In particular, significant erosion has occurred to the banks of Youngs Branch near the intersection of Lee Highway and Sudley Road (see Figure 3-3). This problem has been exacerbated by deer grazing.

Figure 3-3. Deeply cut stream banks of Youngs Branch near the intersection of Lee Highway and Sudley Road (QEA, 2017).

Analysis

Table 3-1 provides a list of contributing and non-contributing natural systems and topographic features. Natural systems and topographic features are illustrated on Figure 3-4.

The rolling ridges and valleys of the study area were important to both plantation development and military actions during the First and Second Battles of Manassas. As the landscape began to be settled and developed into plantations by Euroamerican settlers, upland surfaces were primarily used for agricultural purposes or remained open land, while the slopes and hills were retained for wood lots and forest.[7] The prominent height of Chinn Ridge made an ideal home site for the Hooe mansion Hazel Plain (later the Chinn Farm), affording the plantation home expansive views across the property for surveillance of the fields and workers.[8] The Wigginton House, located in the northwest portion of the study area, appears to have been similarly sited to provide views of the Dogan property. During the battles, woodlots and sheltered topography on steep slopes and along streams provided concealment against the enemy, while the ridges and hills provided critical viewpoints and advantageous locations for the placement of artillery batteries. Due to their importance in the battles, these ridges were logical locations for commemorative features placed during the early 20th century.[9]

Two notable changes have occurred to the natural systems and topography since the periods of significance. Several intermittent tributaries are no longer present. These streams were recorded on Civil War era maps of the site, and was last visible in a 1942 aerial photograph. Minor grade changes were also made to the Warrenton Turnpike (Lee Highway) and Sudley Road (Route 234) in the early

20th century.[10] These changes are not significant alterations that would affect the integrity of the overall natural systems and topography of the study area.

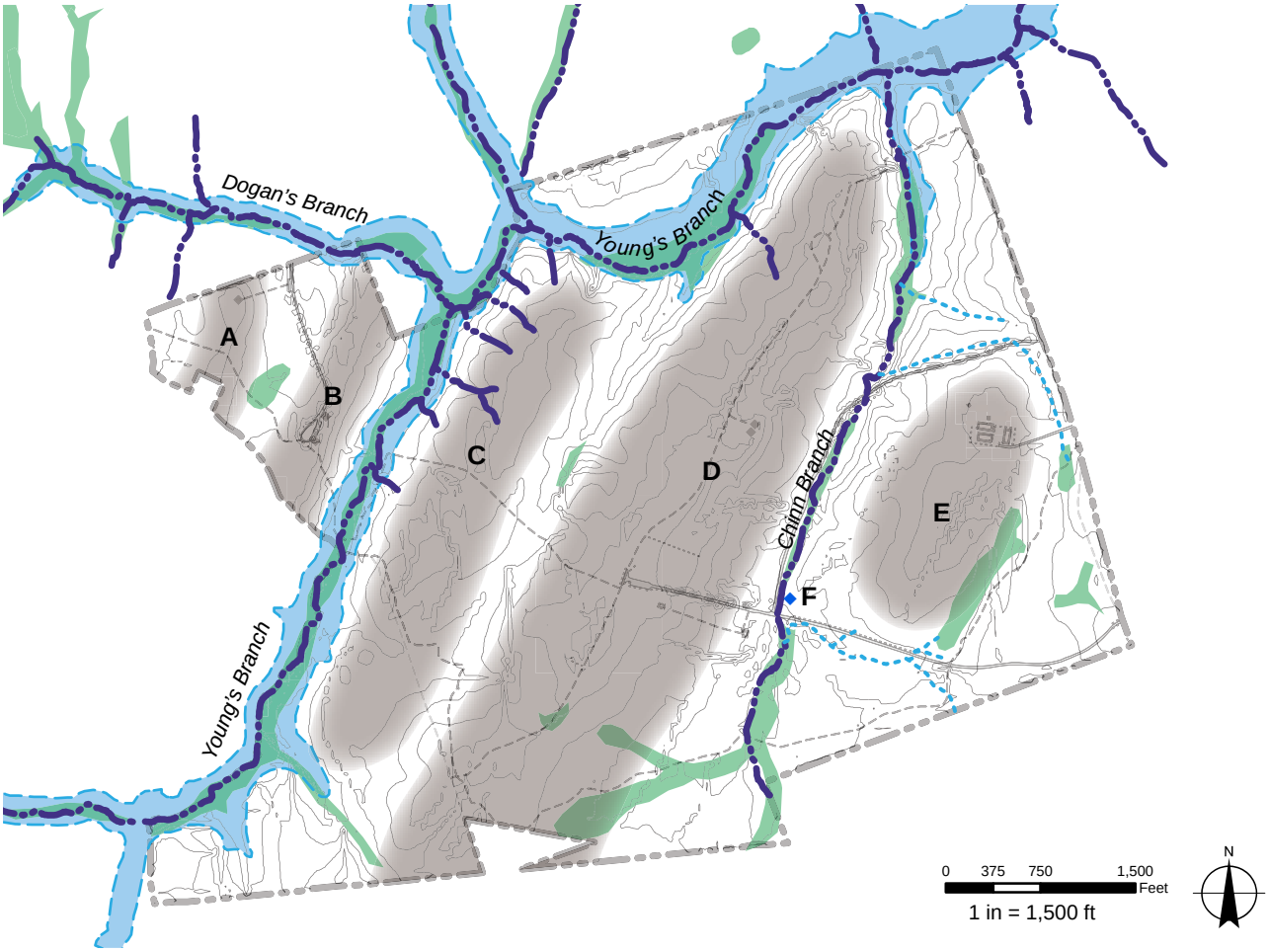
Significant natural systems and topographic features retained today are tangible aspects of the cultural landscape important to understanding the development of the agricultural landscape, the military tactics of First and Second Battles of Manassas, and subsequent memorialization of battle participants. The study area retains integrity of materials, location, feeling, setting, and association related to natural systems and topography for all historic periods.

Table 3-1. Natural Systems and Topography Features

Feature	C/NC/ NC-C	Rationale	Associated period		
			1769-1860	1861-1865	1905-1940
Chinn Ridge	C	Selected as home site for Hazel Plain (later Chinn Farm) to provide views over the surrounding plantation fields. Strategic viewpoint and artillery position during First and Second Manassas. Site of monument.	x	x	x
Ridge occupied by maintenance facilities (Bald Hill)	C	Part of Hazel Plain plantation/ Chinn Farm. Utilized as viewpoint by Confederates during First Manassas.	x	x	
Ridge occupied by 5th and 10th New York Monuments	C	Site of 19th century Wigginton House. Location of heavy fighting during Second Manassas. Site of two monuments.	x	x	x
Ridge occupied by 14th Brooklyn Monument	C	Part of Dogan family farm fields. Artillery position and viewpoint at Second Manassas. Site of monument.	x	x	x
Deeply cut stream valleys	C	During plantation development, steep slopes were retained for woodlots and forest. Provided cover and concealment from the enemy during the battles.	x	x	
Soils suitable for agriculture/pasture	C	Advantageous soils drew tobacco plantation owners into the Virginia Piedmont. The distribution of these soils through the site influenced development of crop fields, pastures, home sites, or woodlots.	x	x	
Youngs Branch	C	Influenced development of plantations. Noted in battle descriptions of Second Manassas as Union soldiers retreated across the stream.	x	x	

FEATURE	C/NC/ NC-C	RATIONALE	ASSOCIATED PERIOD		
			1769-1860	1861-1865	1905-1940
Chinn Branch	C	Influenced development of plantations, military tactics, and subsequent commemoration of the battlefields. During First Manassas, Confederate troops utilized riparian vegetation along Chinn Branch for concealment.	x	x	
Dogan Branch	C	Influenced development of plantations. Noted on battle maps.	x	x	
Intermittent streams	C	Part of the "well-watered" landscape that influenced development of plantations. Noted on battle maps.	x	x	
Chinn Spring	C	Water source for early plantation development. Noted on battle maps. Later enclosed in a casing during development of Bull Run Recreational Demonstration Area.	x	x	x

Figure 3-4. Natural Systems and Topography Analysis



Legend

- Contributing ridge or hill
- Contributing existing stream
- Contributing spring
- Missing stream
- Wetland
- 100 year floodplain
- Chinn Ridge CLR Study Area

A Ridge occupied by 14th Brooklyn Monument
B Ridge occupied by 5th and 10th New York Monuments
C Ridge overlooking Youngs Branch
D Chinn Ridge
E Ridge occupied by maintenance area/Bald Hill
F Chinn Spring

LAND USE

Existing Condition

Existing land use is illustrated on Figure 3-5. The study area is within the legislated boundary of Manassas National Battlefield Park, and all but one acre is owned by the National Park Service. The land within the study area is set aside to preserve the resources associated with historic use of the landscape; trails, waysides, and signs interpret the events of the First and Second Battles of Manassas to park visitors. The study area contains numerous memorials that commemorate the events and major figures of the battles, including the 14th Brooklyn Monument, the 5th New York Monument, the 10th New York Monument, and the New York Avenue gate.

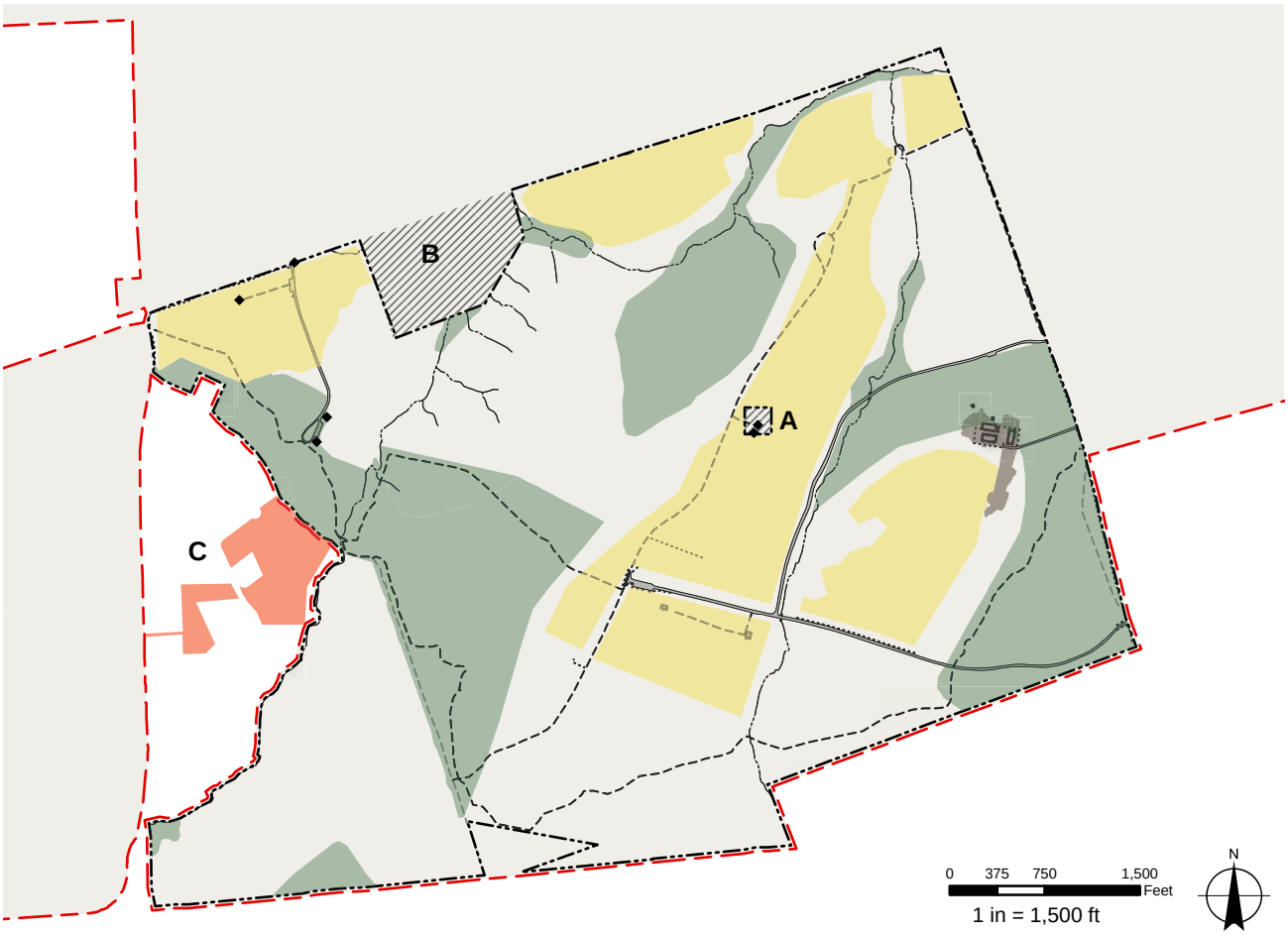
Two monuments, the Webster Monument and a memorial to Texas troops who fell during the Second Battle of Manassas, are placed within the study area on land privately owned by the Webster Monument Trust Foundation. This one-acre parcel is located on the crest of Chinn Ridge approximately 400 yards east of the Chinn Ridge parking area. In 1914, the parcel was acquired by three trustees, including a survivor of the Second Battle of Manassas, who dedicated the Webster Monument. After the three trustees passed away, it became unclear who owned the land. The National Parks Trust is working to eventually transfer ownership of the parcel to the National Park Service. Manassas National Battlefield Park maintains this parcel, including mowing and maintenance of both monuments.

Currently, 177 acres of the study area are maintained through agricultural hay leases. Hay is mown within portions of some historic field locations, allowing visitors to experience the setting of Chinn Ridge as a plantation, and as it appeared during the First and Second Battles of Manassas. The remainder of the study area is wooded.

The park maintenance facility is located along the eastern edge of the study area. The maintenance area includes three buildings and storage areas enclosed by a chain-link fence, as well as park vehicle storage, two small sheds, staff parking, and materials storage areas are located outside the fence.

The McGlothlin property, a privately owned parcel along the northern border of the study area, is within the legislated boundary of the park and is subject to the restrictions of a scenic easement. Per the terms of this easement, the lands must be used exclusively for agricultural purposes, and any alterations to existing structures or the landscape are subject to park approval.[11]

Figure 3-5. Study area existing land use



Legend

- Existing hay lease in location of historic grassland/pasture
- Existing woodland in location of historic woodland
- Existing monuments
- Existing maintenance area
- Existing Manassas National Battlefield Park Boundary
- Manassas National Battlefield Park Legislated Boundary
- Private property adjacent to study area within legislated boundary
- Property protected by American Battlefield Trust
- **A** Webster Monument Inholding
- **B** McGlouthlin Property (scenic easement)
- **C** General Longstreet's Line neighborhood

Immediately adjacent to the study area to the west is the General Longstreet's Line neighborhood. This neighborhood is outside of the legislated boundary of the park and typically consists of single family residences situated on wooded, one to two acre lots. Four parcels within this neighborhood are preserved in whole or in part by the American Battlefield Trust.

Analysis

Table 3-2 provides a list of contributing and non-contributing land uses. Agriculture has been documented within the study area since it was settled by Europeans in the 1700s. The continuing use of this property under National Park Service agricultural leases maintains the agrarian character of the landscape even though significant portions of the cultural landscape that were previously agricultural fields are now forested. In addition to fields, woodlots were an important aspect of farmsteads within the region during the periods of significance, providing wood for fuel and fencing. The locations of historic woodlots continue to be wooded in the park today, and display a distinctive character different from later successional woodlands.

Following the battles, a new land use was introduced. Commemorative monuments were added to the study area beginning in the early 1900s, and have become significant symbols on the battlefield. To support commemoration and memorialization of the battles, educational and interpretive features and maintenance facilities were initiated through WPA developments in the 1930s.

Selected land uses of commemoration, agriculture, and maintained woodlands are consistent with historic use of the Chinn Ridge landscape, and contribute to the overall character of the landscape. Land use in the study area retains integrity of materials, feeling, setting, and association.

Table 3-2. Land Use Analysis

FEATURE	C/NC/ NC-C	RATIONALE	ASSOCIATED PERIOD		
			1769-1860	1861-1865	1905-1940
Agricultural (hay lease)	C	Consistent with agricultural land use during all periods of significance.	x	x	x
Managed woodland	C	Consistent with management of woodlots during all periods of significance.	x	x	x
Commemoration	C	Inclusion of the study area within the national battlefield park is consistent with earlier preservation and commemoration efforts; four memorials are retained on the site			x
Park maintenance facility	NC	While important for park management, these noncontributing facilities are located within an area with importance to all three periods of significance.			

SPATIAL ORGANIZATION

Existing Condition

The spatial organization of the landscape is primarily influenced by topography and vegetation. Visibility of topographic and vegetative features affects the ability of visitors to understand historic conditions and battle movements. Land patterns within the park relate to the juxtaposition of visually open and closed areas that consist of fields with edges defined by dense woodlands. Although some shifts in the configuration of open and closed areas has occurred over time, this characteristic aspect of the landscape has persisted across historical periods as indicated in maps and aerial photographs (see Figure 3-7 to Figure 3-9).

Based on the spatial organization of the Chinn Ridge landscape, this CLR separates the study area into two landscape character areas, located to the northwest and southeast of Youngs Branch. The two areas are accessed via separate vehicular routes, and are visually separated by dense woodland vegetation. The southeast area comprises the historic location of the Chinn Farm, and the northwest portion contains the three New York Monuments (see Figure 3-6).

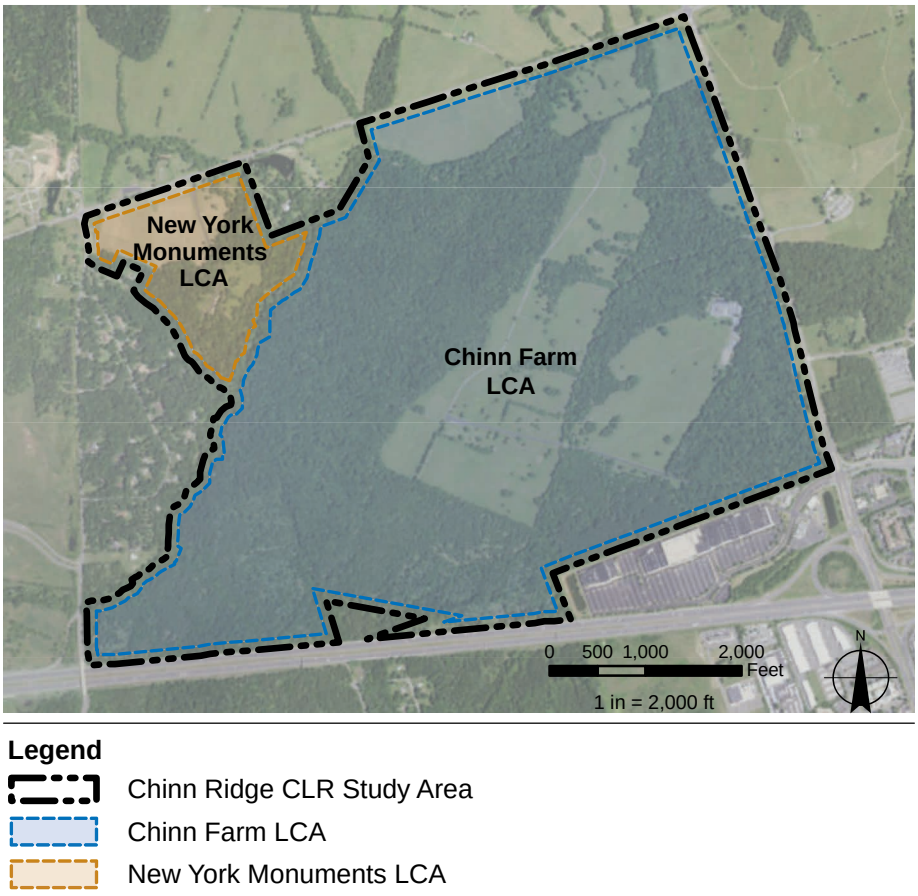


Figure 3-6. Project study area and landscape character areas.

New York Monuments Landscape Character Area

The New York Monuments area is located at the northwest corner of the CLR study area, and includes 67 acres bounded by Youngs Branch to the south, Groveton Road and a section of private property to the west, Lee Highway to the north, and private property to the east. The area contains three monuments to the New York 5th Infantry, New York 10th Infantry, and 14th Brooklyn Infantry, as well as a memorial gate, hiking trails, and bridle trails.

The primary resources within this area, three commemorative monuments, are arranged on two parallel ridges extending northeast-southwest. Vegetation defines two spatially distinct areas, visually separating the 5th and 10th New York Monuments from the 14th Brooklyn Monument. The southern portion of the landscape character area is characterized by woodland and grassland vegetation, while the northern portion is maintained as an open field.

Chinn Farm Landscape Character Area

The Chinn Farm area includes 685 acres comprising the remainder of the study area. Within the boundaries of this landscape character area are remnants of the Chinn Farm, the park maintenance facilities, hiking trails, and bridle trails. The LCA is a mixture of open fields and wooded areas.

The Chinn Farm landscape character area occupies two parallel ridges running approximately northeast-southwest, Chinn Ridge to the north and another rise sometimes referred to as Bald Hill to the south (see Figure 3-4). The tops of both ridges are characterized by broad, open fields surrounded by dense woods. These two spaces are separated by a valley cloaked in woody vegetation associated with Chinn Branch.

The landscape at the Chinn Farm is characterized by a linear field running parallel to the trail along the top of the ridge. Rows of red cedar trees form the edges of some former fields. The highest point of the ridge is occupied by remnants of the Chinn Farm core area, which are distributed in a roughly linear arrangement along the southeastern slope of the ridge. This core area includes the Chinn House foundation and Hooe Cemetery are aligned on an axis parallel to South Chinn Drive, enclosed within roughly rectangular spaces defined by rows of red cedar trees.

South Chinn Drive provides a linear connection between Chinn Ridge and Bald Hill. The top of Bald Hill is occupied by a large field extending from South Chinn Drive on its southern end to the maintenance area on its northern end. The maintenance area is enclosed by fence surrounding the cluster of three buildings

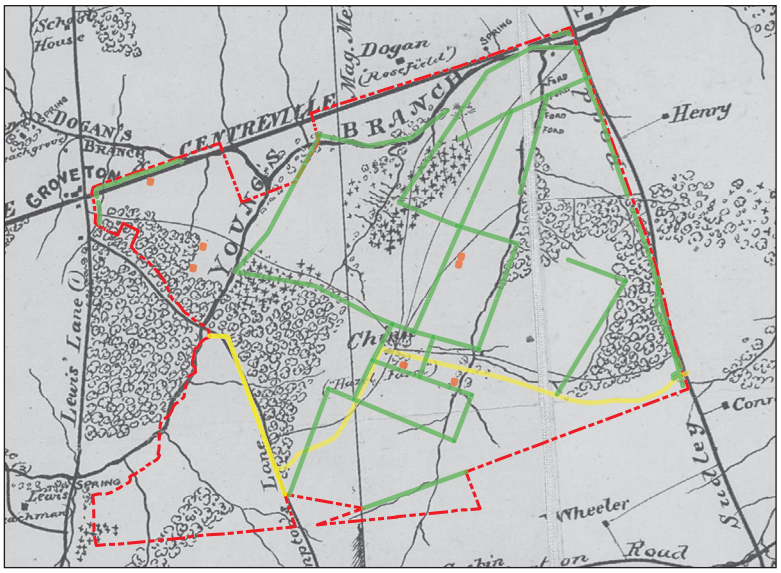


Figure 3-7. 1878 Warren map overlaid with 2018 study area (red), fencelines (green), roads (yellow), and structures and monuments (orange).

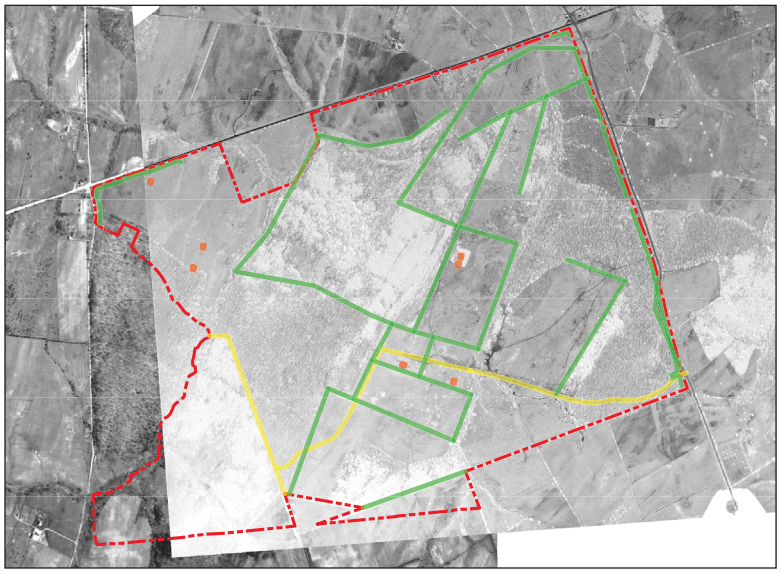


Figure 3-8. 1937 aerial photograph overlaid with 2018 study area (red), fencelines (green), roads (yellow), and structures and monuments (orange).

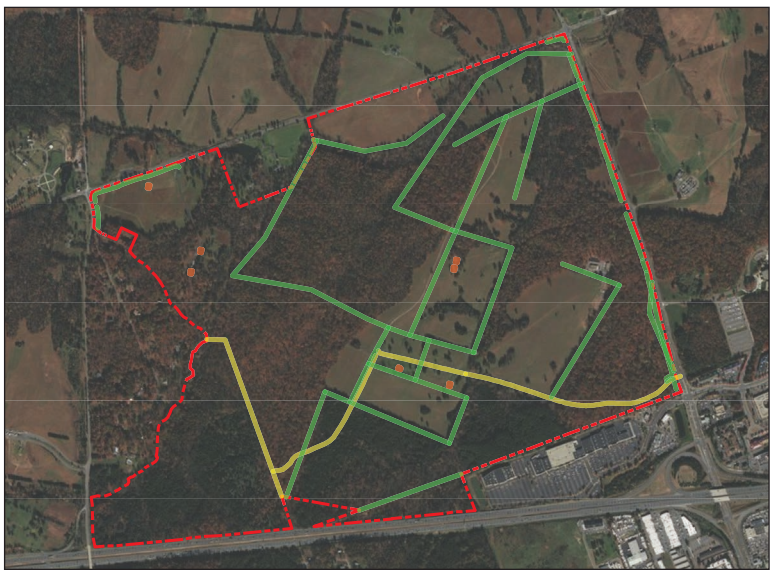


Figure 3-9. 2018 aerial photograph overlaid with 2018 study area (red), fencelines (green), roads (yellow), and structures and monuments (orange).

and work areas. Maintenance storage areas extend north, into the woodland, as well as south along the edge of the field.

Analysis

Figure 3-7 through Figure 3-9 highlight consistent patterns visible between the 1878 Warren plan, a 1937 aerial photo, and a 2017 aerial photo. Table 3-3 summarizes the analysis of spatial organization.

During the plantation development and Civil War periods, the Chinn Farm area was composed of a mosaic of farm fields and woodlots delineated on the edges by roads and fencelines or fenceline vegetation. The Chinn house was oriented to the northwest-southeast axis of the ridge, providing an expansive view over the plantation fields. Near the house, the landscape was arranged in four unequal quarters bordered by fencelines. The two southern quarters historically contained the residence and outbuildings arranged on a series of broad, flat, cascading terraces extending down the hillside, roughly parallel to the road.

As agriculture declined in the Manassas area following the end of the Civil War, successional vegetation crept into unused fields and farm buildings fell into disrepair and were removed. Maintaining the open character of the landscape has been a persistent challenge since property within the study area was transitioned into parkland beginning in the mid-1930s. At that time, some forests on Chinn Ridge and Bald Hill were cleared by the WPA to restore 1860s views. These openings were not consistently maintained, and over the intervening years large areas have been encroached upon by successional vegetation.[12] Another notable impact to the spatial organization of the landscape character area is the presence of the parking area at the top of the ridge, immediately adjacent to remnants of the Chinn Farm.

Despite the loss of the farm buildings and encroaching vegetation that restricts views, the Chinn farm area retains recognizable patterns similar to those present at the 18th and 19th century Chinn Farm/Hazel Plain. The axial orientation of the Chinn House to the ridge is retained and the topography of the terraces is visible today. Lines of red cedar trees oriented north-south in this area likely follow historic fencelines that delineated the yard and garden spaces.

The New York Monuments landscape character area retains the spatial integrity of the commemoration and memorialization period when the three New York monuments were placed. The monuments retain their position on the highest points within the landscape character area, corresponding to important locations during the battle that provided commanding viewsheds and fields of fire.

Spatial organization within this area has been impacted by the encroachment of vegetation that blocks views between the three monuments, and between the monuments and Chinn Ridge.

Table 3-3. Spatial Organization Analysis

FEATURE	C/NC/ NC-C	RATIONALE	ASSOCIATED PERIOD		
			1769-1860	1861-1865	1905-1940
Open areas of fields juxtaposed with dense woodlands	C	General pattern of open fields with edges defined by woodland. Consistent with spatial organization during all periods of significance.	x	x	x
Formal organization of Chinn farm (Hazel Plain) plantation	C	Oriented to Chinn Ridge and farm road. Evidenced by plantation remnants including structures, roads, fenceline vegetation, and terracing. Consistent with spatial organization during all periods of significance.	x	x	x
Cluster of three monuments at New York Monuments Area	C	Reflects original layout of the three monuments as a group.			x

BUILDINGS AND STRUCTURES

Existing Condition

Buildings and structures within the study area include the Chinn House foundation with capped chimneys, the Hooe Family Cemetery walls, and modern maintenance buildings in the southwestern portion of the study area. Buildings and structures are illustrated on Figure 3-10 and drawings EC-1 through EC-7.

Chinn House Foundation

The Hazel Plain plantation house, later known as the Chinn House, was sited on the crest of Chinn Ridge, overlooking the plantation's fields. As described in the 2017 CLI, "Hazel Plain was an example of the ordered style of Georgian architecture that became popular among plantation owners in Virginia. The house was a large, five-bay, double pile, side gable, two-story frame structure with a sandstone foundation, exterior end brick double chimneys, and full English cellar." The date of construction of Hazel Plain has been stated in earlier cultural resource documents as 1809, however, it was likely built around 1769, when Bernard Hooe came into possession of the property.[13] In addition to the plantation home, a number of other support structures were associated with the plantation. None of these structures have been documented on the site. The locations of these features were documented in a 1981 archeological survey conducted by Thomas McGarry and are described in the Archeological Resources section of this chapter. Hazel Plain served as a field hospital following both First and Second Manassas. It was razed in 1950 due to its poor condition, leaving only a foundation with two capped chimneys to mark the location of this once-prominent home (see Figure 3-11).

The remaining foundation remnants measure 28' by 46'-9" and are composed of rough-cut red sandstone in irregular courses. The stones are set with lime mortar and terminate approximately 2'-6" above grade. The foundation walls are 1'-8" thick. Although a variety of types of mortar have been used to patch the walls, they appear stable, with only limited cracking, mortar erosion, and missing stones. The east segment of wall is bowing outward.

The gable-end northwest and southeast walls have exterior end chimney foundations of red sandstone that measure 14'-9" by 2'-8". The chimney foundations are capped with poured concrete slabs at the same height as the foundation walls. The extended foundation wall on the northeast façade supported a lean-to shed that is depicted in photographs beginning in 1890. The cellar was filled in after the house was razed.

The capped chimneys both show evidence of water retained within the foundation through cracking, eroded mortar, and vegetative growth within the mortar.

The Chinn House foundation ruin is original to the 1769 building, is in fair condition, and contributes to the historic site.

Hooe Cemetery Wall

The Hooe Cemetery site is surrounded by a three-and-one-half-foot-high native sandstone wall with two, 5' high carved sandstone gate posts centered in the west wall (see Figure 3-12). The walls enclose a rectangular space approximately 32' by 46'. The reconstructed wall, which was built between 1967 and 1980, is in good condition. There is limited moss growing on the wall, the west gate post is damaged, and both posts exhibit minor spalling.

The Hooe Cemetery wall is a reconstruction, but it was constructed with the original stones that were restacked and mortared. Although it is a reconstruction, it is in the same location with the original materials and design, and therefore contributes to the historic site. The below-grade features of the cemetery are discussed separately in the Archeological Resources section of this report.

Maintenance Office and Garage

The maintenance office and garage building is located on the east side of the maintenance area. The building is a single-story concrete block structure with a gable roof. It is approximately 104' by 43' and is oriented roughly north-south. The maintenance office occupies the southern end of the building, and five garage bays are in the northern portion of the building. The Maintenance Office and Garage was constructed after the end of the period(s) of significance and does not contribute to the historic significance of the cultural landscape.

Maintenance Shop

The maintenance shop building is located west of the maintenance office and south of the maintenance storage building (see Figure 3-13). It is approximately 50' by 108' and is oriented east-west. The building is a single-story concrete block structure with a multi-level flat roof. A wood-framed extension with a shed roof has been added to the east side of the structure. The maintenance shop was constructed as part of Mission 66 developments at the park after the end of the period(s) of significance and does not contribute to the established historic significance of the property. No evaluation of significance of Mission 66 developments at this location have been undertaken.

Maintenance Storage Building

The maintenance storage building is located west of the maintenance office and parallel to the maintenance shop (see Figure 3-14). It is a single-story wood framed structure with a gable roof measuring approximately 30' by 125'. Open storage areas with shed roofs have been added along the north and east sides of the structure. The maintenance storage building was constructed in the late 1930s as part of WPA developments at Chinn Ridge. The building contributes to the period associated with commemoration and memorialization of the battlefield landscape.

Maintenance Outbuildings

Two small concrete block outbuildings are located north of the fenced-in maintenance area. Two corrugated metal sheds are located east of the maintenance office and garage along the eastern fenceline. These outbuildings were constructed after the end of the period(s) of significance and do not contribute to the cultural landscape.

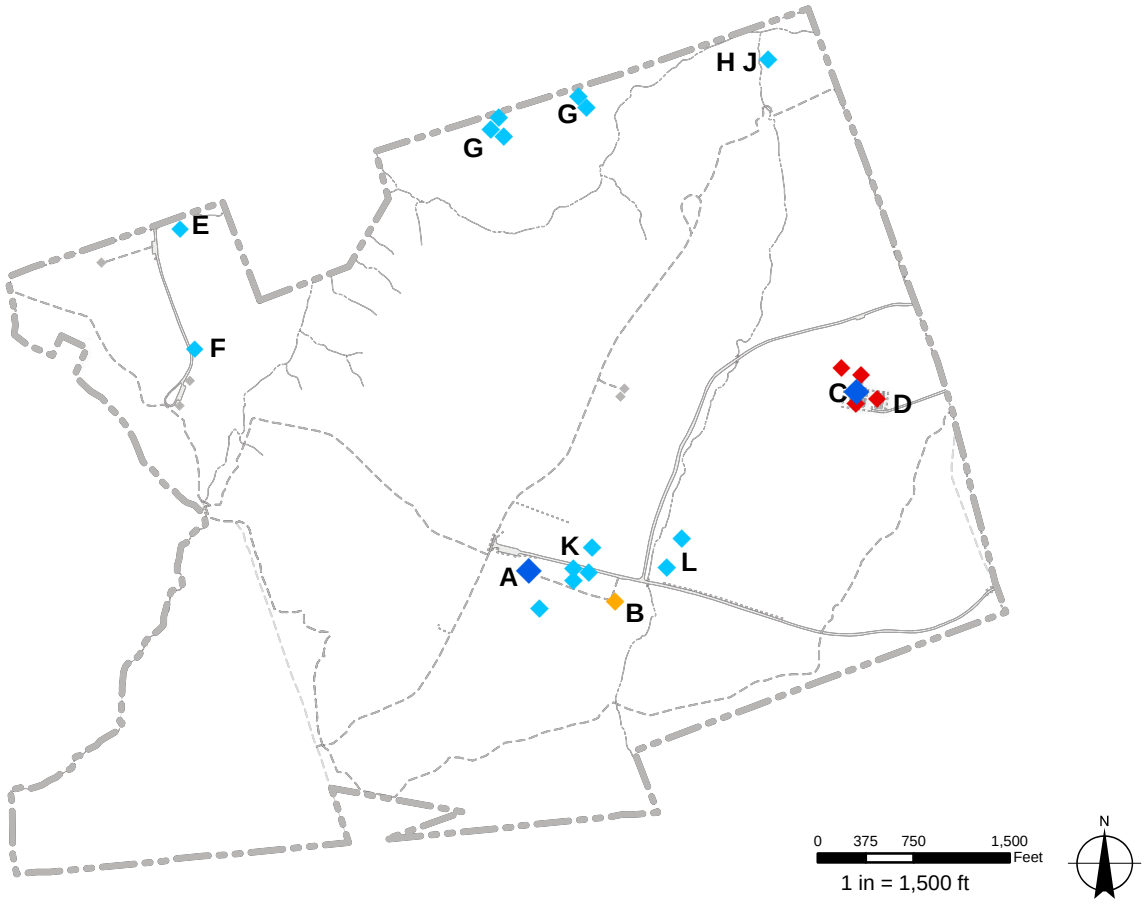
Analysis

Table 3-4 provides a list of contributing and non-contributing buildings and structures. There are two buildings and structures that are retained from the period(s) of significance and contribute to the historic landscape. The Hooe Cemetery wall, though reconstructed, is constructed of similar materials and in the same location as the original wall, and is compatible with its historic surroundings. The remaining buildings and structures within the study area are located within the maintenance area. For the most part, these buildings are not visible from visitor areas due to vegetative screening. During the periods of significance, a variety of buildings and structures were present within the landscape. In the Chinn Farm area, these included a residence and series of outbuildings associated with Chinn Farm/Hazel Plain, and a 19th century residence that was used as field headquarters for WPA work at the Bull Run Recreational Demonstration Area. In the New York Monuments area, this included the Wigginton house, as well as another identified building along Warrenton Turnpike that is present on some battle maps (see item E on Figure 3-10). Overall, the loss of these buildings and structures reduces the ability of the landscape to represent its historic condition, and therefore buildings and structures do not maintain integrity.

Table 3-4. Buildings and Structures Analysis

FEATURE	C/NC/ NC-C	RATIONALE	ASSOCIATED PERIOD		
			1769-1860	1861-1865	1905-1940
Chinn House Foundation	C	Original to the 18th century Chinn House	x	x	x
Hooe Cemetery Wall	NC-C	Reconstruction of 18th century cemetery wall in original location.	x	x	x
Maintenance Office and Garage	NC	Modern addition			
Maintenance Shop	NC	Modern addition			
Maintenance Storage Building	C	Constructed as part of 1930s WPA site development			x
Maintenance Outbuildings (4)	NC	Modern additions			

Figure 3-10. Buildings and Structures



Legend

- Contributing building or structure
- Missing building or structure
- Non-contributing compatible structure
- Non-contributing building or structure
- Chinn Ridge CLR study area

A Chinn House Foundation
B Hooe Cemetery
C Maintenance Storage Building
D Cluster of modern maintenance buildings
E Civil War Era structure (approximate)
F Wigginton House (approximate)
G Cluster of 19th/20th century farm buildings
H Hooe dependency site (approximate)
J 19th/20th century residence
K Chinn farm/Hall Plain outbuildings
L Late 19th century residence/WPA headquarters

Figure 3-11. Northeast corner of Chinn House foundation, 2017 (QEA)

Figure 3-12. Hooe Cemetery, 2017 (QEA)

Figure 3-13. Maintenance Shop, 2017 (QEA)

Figure 3-14. Maintenance Storage Building, 2017 (QEA)

CIRCULATION

Existing Condition

Circulation within the study area is comprised of vehicular routes, pedestrian routes, and bridle trails. In addition, there are several historic road traces apparent on the landscape. Circulation routes are illustrated on Figure 3-20 and drawings EC-1 through EC-7.

Vehicular Routes

Regional access to the study area is via Interstate 66. An interchange is located at Sudley Road. Vehicular routes providing access to the park are Sudley Road, Lee Highway, and Groveton Road. Within the study area, other paved roads provide access to park resources and an interpretive driving tour. A network of service roads supports park operations and fire management. Roads not owned or managed by NPS are indicated by an asterisk.*

Sudley Road*

Sudley Road (Virginia State Route 234) is the primary north-south vehicular route accessing the study area. The road is not owned by the NPS. It is a two-lane asphalt paved road with a speed limit of 35 to 45 miles per hour. The road is heavily utilized by commuter and truck traffic, which is especially intense during peak morning and evening rush hours. Sudley Road is utilized as part of the Second Manassas Battlefield Driving Tour. Directly across Sudley Road from the entrance to the Chinn Farm is the entrance road to the Visitor Center and Henry Hill. The quantity and speed of traffic make vehicular left turns and pedestrian crossings on Sudley Road particularly dangerous. Sudley Road developed as an early route south from Sudley Mill toward New Market, and is present on a plat map as early as 1815.[14] The southern portion of Sudley Road was realigned in 1940, and a portion of the original grade is visible to the west of the current road.

Lee Highway*

Lee Highway (also referred to as US Route 29) is the primary east-west vehicular route providing access to the study area. The highway is not owned by the NPS. It is a two-lane asphalt paved road with a speed limit of 45 miles per hour. Lee Highway is heavily travelled with commuter traffic to and from Washington, DC, particularly during morning and evening rush hours. Heavy traffic and relatively high speed make left turns and pedestrian crossings dangerous. Lee Highway was original constructed by the Fauquier and Alexandria Turnpike Company between 1808 and 1828, and was historically referred to as the Warrenton Turnpike.[15] The poor condition Warrenton Turnpike was realigned and paved with concrete in 1926, and was redesignated US Route 29-211.[16]

Groveton Road*

Groveton Road (also referred to as State Route 622) is a two-lane north-south asphalt road located along the western edge of the study area. It follows the route of a farm road, present by the time of the battles as "Lewis Lane." The road is not owned by the NPS. It carries substantially less traffic than Sudley Road and Lee Highway. Groveton Road intersects Lee Highway at the northwest corner of the study area. No designated pedestrian crossing is indicated at the intersection.

Interstate 66*

Interstate 66 (I-66) is an east-west interstate highway connecting between Washington, D.C. and Strasburg, Virginia. The highway was constructed in 1957, and is not owned by the NPS. Parallel to and south of the southern boundary of the study area, the highway is three lanes in each direction with a speed limit of 60 miles per hour. It is a major commuter highway between the area and Washington, D.C., with an extremely high traffic load. The Cushing Road Commuter Lot, a park-and-ride lot with capacity for 433 cars, is situated less than one mile southwest of the study area at I-66 Exit 44.[17]

New York Avenue

New York Avenue, called Warren Avenue until the 1960s, is a two-lane unmarked asphalt road providing access to the three New York Monuments. The road extends a quarter mile south from Lee Highway, terminating in a loop near the New York Monuments. New York Avenue has been recently repaved and is in good condition. Two small parking areas are adjacent to the road. Near the 14th Brooklyn Monument, a small lot provides parking for 11 cars. Parking for 12 cars (including four universally accessible spaces) is located at the end of the road near the loop. Access to the road is controlled by a wood gate south of the 14th Brooklyn Monument parking area. The New York Monuments are stop 9 on the Second Manassas Battlefield Driving Tour, and visitors following the self-guided tour will have immediately come from Groveton Confederate Cemetery. New York Avenue roughly follows the route of Warren Avenue, which was constructed around 1906 when the monuments were dedicated.[18]

Figure 3-15. South Chinn Drive looking east toward Chinn Branch, 1936 (MANA Archives)

Figure 3-16. Similar view of South Chinn Drive, 2017 (QEA)

North and South Chinn Drives

The current entrance road to the Chinn Farm is North Chinn Drive, a one-way asphalt route off of Sudley Road. The entrance to the site is located immediately west of the entrance to the Visitor Center and Henry Hill, and is marked by signs indicating the site name and stop number in the Second Manassas Battlefield Driving Tour. A wood gate across the road restricts after-hours access. From Sudley Road, North Chinn Drive extends one half mile west to the Hooe Cemetery, where it comes to an intersection with South Chinn Drive. Tour stop 10 (Chinn Ridge) is on South Chinn Drive. North Chinn Drive was added as a tour route during 1930s development of the Bull Run Recreational Demonstration Area. The road contributes to the cultural landscape.

The western portion of South Chinn Drive is a two-way route that terminates in a parking area (see Figure 3-15 and Figure 3-16). The asphalt parking area accommodates 3 buses and 17 cars, with 2 accessible parking spaces. The eastern portion of South Chinn Drive is a one-way route that extends one half mile to the east and intersects with Sudley Road north of Battleview Parkway. A wood gate restricts after-hours access. The road follows the 18th and 19th century access route to Hazel Plain and later Chinn Farm, and is in good condition. South Chinn Drive contributes to the cultural landscape.

Maintenance Access

A short asphalt road provides access to the maintenance area from Sudley Road, and was constructed in the 1930s when maintenance facilities were developed in the study area for the Bull Run Recreational Demonstration Area. The road contributes to the significance of the cultural landscape. The maintenance road meets Sudley Road just below the crest of a low rise, which causes difficult left turns during periods of heavy traffic.

The road extends into the fenced maintenance area to a large asphalt parking lot used for vehicle and equipment storage. The pavement is in fair condition, and has been worn by surface drainage. To the south of the maintenance area a gravel road abuts an area used to stockpile materials at the edge of the woods. Maintenance personnel park along this gravel road.

Fire/Park Service Roads

A network of gravel and two-track roads provides operations and fire control access throughout the study area (see item F on Figure 3-20). Some of these limited-access roads are dual-purpose hiking trails. Those that are also hiking trails are described under pedestrian routes.

There is an unauthorized short-cut between the maintenance area and South Chinn Drive. The bare earth route cuts across a field of native grasses. Another unauthorized short-cut extends between North Chinn Drive and the maintenance area along a utility corridor. The utility corridor is roped off, however due to its close proximity to an interpretive wayside, visitors periodically use the route and accidentally wind up in the maintenance area.

Pedestrian Routes

Second Manassas Trail

The Second Manassas Trail is a 6.6 mile hiking trail that extends between Matthews Hill, a portion of the Unfinished Railroad, Chinn Ridge, and the Visitor Center (see item A on Figure 3-20). Within the study area, the trail provides an east-west connection between Groveton, the New York Monuments, Chinn Ridge, and the Visitor Center. Portions of the trail follow the routes of other hiking and bridle trails within the study area, including segments of the Chinn Ridge Trail. Within the study area, the Second Manassas Trail is typically bare earth or mown grass. The portion of the route that is along the Chinn Ridge Trail is asphalt.

Between the New York Monuments and Chinn Ridge, the Second Manassas Trail forms a pedestrian loop. From the Chinn House parking lot, the trail follows the route of an old farm lane to the southwest. This portion of the trail is shared with a park service road. Approximately one half mile west of the parking lot, the trail comes to a four-way intersection with a bridle trail and a service road. The loop trail continues to the north, following a shared route with the bridle trail. This portion of the route is roughly parallel to the Compton's Lane road trace, but no longer follows the historic alignment. Several earthen or wooden water bars are located at steep areas to minimize water damage to the trail. The trail turns to the northeast along Youngs Branch and then eventually turns toward the southeast to complete the loop back to the Chinn House parking area. The portion of trail extending between Youngs Branch and the Chinn House parking area roughly

Figure 3-17. Service road and asphalt trail along Chinn Ridge Trail, 2017 (QEA).

follows the route of an historic farm road. The service road continues for one half mile to the west of the Second Manassas Trail, eventually meeting Groveton Road. This segment is in poor condition, with deep ruts and gravel washouts caused by surface erosion.

A recently established segment of the Second Manassas Trail is a mown grass route extending northeast from the Chinn Ridge Trail. The new trail winds down the ridge along red cedar fencelines to Sudley Road, crossing Chinn Branch on a wood trail bridge. At Sudley Road, the trail turns south and follows along the inside of the worm fence along the road until it reaches the Chinn Ridge entrance road.

Chinn Ridge Trail

Chinn Ridge Trail extends north from the Chinn House parking lot (see item D on Figure 3-20). The trail is a one-mile long asphalt paved path along the top of the ridge where heavy fighting occurred during the Battle of Second Manassas on August 30, 1862 (see Figure 3-17). A number of interpretive signs along the trail convey the story of Union troops who made a desperate stand on Chinn Ridge and blunted the Confederate counterattack. Near the middle of the trail is the monument dedicated to Colonel Fletcher Webster of the 12th Massachusetts, killed in action on Chinn Ridge, as well as the recently placed Texas monument. The trail concludes at an interpretive marker that discusses the combat on Chinn Ridge during the Battle of First Manassas on July 21, 1861. The path was originally constructed as a vehicular route in the 1930s during WPA development of the site. It was modified in 1999 to a five foot wide asphalt pedestrian trail with a four foot wide gravel shoulder. It is in poor condition and needs to be resurfaced. The trail also functions as a service road.

Sidewalk at 5th and 10th New York Monuments

A concrete sidewalk provides a barrier-free route between the parking area and the 5th and 10th New York Monuments. The sidewalk was recently installed and is in good condition.

Mown Grass Trails to Individual Features

Mown grass trails are used to provide short routes to individual features within the study area. One mown trail extends from the 14th Brooklyn Monument parking area to the 14th Brooklyn Monument (see Figure 3-18). The trail traverses a steep slope to the top of the hill where the monument is situated, and is in good condition. While there is a barrier-free route to view the 5th and 10th New York Monuments, the grade is too steep along the current trail to the 14th Brooklyn Monument to provide a barrier-free route. Another mown trail extends south

from South Chinn Drive to the Hooe Cemetery, and then connects west to the Chinn House ruins. A third mown trail connects between the Chinn Ridge Trail and the Fletcher Webster and Texas Monuments.

Figure 3-18. Mown grass trail from 14th Brooklyn Monument to parking area (QEA, 2017)

Bridle Trails

Manassas National Battlefield Park contains approximately 21 miles of bridle trails. Within the study area, designated bridle trails share portions of pedestrian hiking trails. A two and a quarter mile long bridle trail winds through the forest from Sudley Road to the intersection of Groveton Road and Lee Highway (see item B on Figure 3-20). From Sudley Road, the trail passes to the south and west of Chinn Ridge, where it joins with the Second Manassas Trail. At Youngs Branch, the bridle trail follows the Second Manassas Trail north to the intersection of Groveton Road and Lee Highway, where the trail continues north outside of the study area. The bridle trail is typically bare earth or mown grass, and is in fair condition. Portions of the trail, particularly in the south west corner of the study area, are low and retain moisture, and alternate routes have been developed to avoid these wet areas. Bridle trails were developed by Superintendent Russell W. Berry between 1969 and 1973, and do not follow historic routes.

Figure 3-19. Compton's Road trace (QEA, 2017)

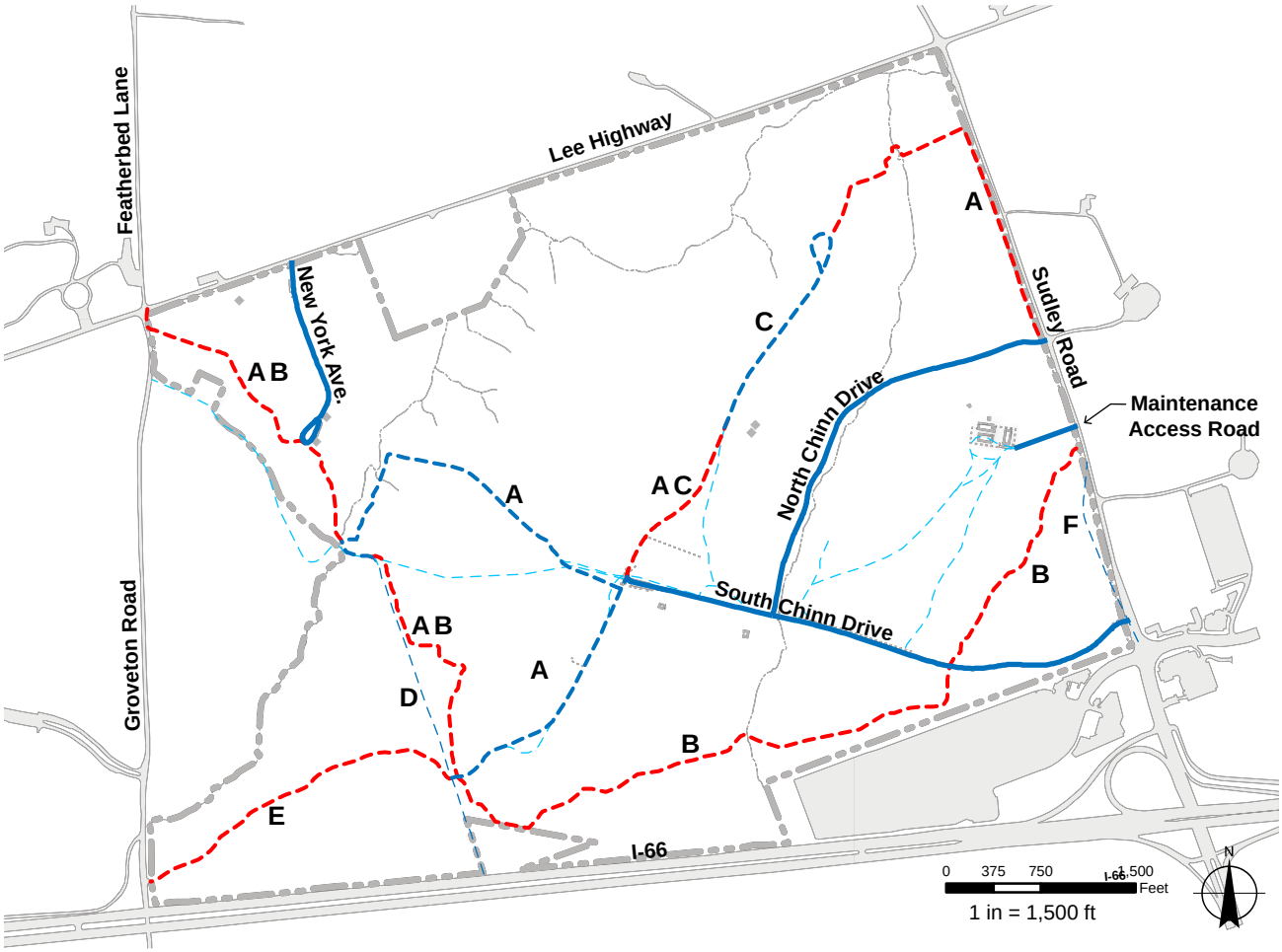
Road Traces

Two remnant road traces are apparent within the study area. The road grade associated with 18th century Compton's Lane is clearly visible in the western portion of the study area (see item E on Figure 3-20). The road trace consists of a relatively level road bed cut into the terrain and extending north-south. The surface of the road trace appears to be in fair condition, though covered in leaves at the time of field investigations (see Figure 3-19). The road trace was previously used as a hiking trail, but has been abandoned. Small woody vegetative growth and fallen trees may be impacting the road grade.

A road grade is visible along the southeast corner of the study area, in the location of the original alignment of Sudley Road (see item G on Figure 3-20). In 1940, the road was modified to its current route.

A short segment of road near Hooe Cemetery was identified by McGarry in 1982. Remnants of this feature were not located during field investigations in October 2017.

Figure 3-20. Circulation features



Legend

	Contributing circulation route - road	**A**	Second Manassas Trail
	Contributing circulation route - trail	**B**	Bridle Trail
	Contributing road trace	**C**	Chinn Ridge Trail
	Missing circulation route	**D**	Compton's Lane
	Non-contributing circulation route	**E**	Fire/Maintenance Road
	Circulation route adjacent to study area	**F**	Former route of Sudley Road
	Chinn Ridge CLR Study Area Boundary		

Analysis

Numerous circulation routes contribute to the overall character of the landscape. Figure 3-20 illustrates contributing and non-contributing circulation routes within the study area. Portions of several historic roads and road traces are used today for vehicular, pedestrian, and equestrian access. Many of the existing vehicular routes follow historic road routes that were constructed during the 18th and 19th century as plantation development occurred within the region. These roads later served as important circulation routes for the movement of both armies during First and Second Manassas. Limited road development is also associated with WPA projects undertaken during the commemoration and memorialization period during the 1930s. Within the study area, these routes were primarily constructed to access the New York Monuments and commemorative features along Chinn Ridge. Examples include North and South Chinn Drive, and the maintenance access road.

Overall, circulation routes retain integrity of location, feeling, association, and setting. The aspects of materials, workmanship, and design have been diminished slightly due to modification of these roads to serve modern purposes. Only minor farm routes are missing from the periods of significance. Table 3-5 provides a list of contributing and noncontributing circulation routes within the study area.

Table 3-5. Circulation Analysis

FEATURE	C/NC/ NC-C	RATIONALE	ASSOCIATED PERIOD		
			1769-1860	1861-1865	1905-1940
Sudley Road*		Developed as an early road during the plantation development period to connect from Sudley Mill, north of the study area, to Manassas. The alignment remains intact adjacent to the study area with the exception of the section at the southeast corner of the study area where it was re-aligned in 1940. Historic portions of the road contribute to the significance of the study area.	x	x	x
Lee Highway*		Follows the route of the Warrenton Turnpike, constructed between Alexandria and Warrenton, Virginia, from 1808-1828.	x	x	x
Groveton Road*		Follows alignment of historic road	x	x	x

FEATURE	C/NC/ NC-C	RATIONALE	ASSOCIATED PERIOD		
			1769-1860	1861-1865	1905-1940
Interstate 66*		Modern addition outside of study area			
New York Avenue	C	Follows alignment of Warren Avenue			x
North Chinn Drive	C	Added as part of 1936 Bull Run Recreational Demonstration Area site development			x
South Chinn Drive	C	Follows the route of a farm road that historically served Hazel Plain/Chinn Farm.	x	x	x
Fire/Maintenance Access Road	C	Added as part of 1936 Bull Run Recreational Demonstration Area site development to provide access to maintenance facilities.			x
Park Service Roads	NC	Modern addition			
Second Manassas Trail	C	Portions follow alignment of a 19th century farm roads	x	x	x
Chinn Ridge Trail	C	Added as part of 1936 Bull Run Recreational Demonstration Area site development; portion of trail has been realigned and is noncontributing			x
Sidewalk to 5th and 10th New York Monuments	NC	Modern addition			
Mown trails to individual features	NC	Modern addition			
Bridle Trails	NC	Modern addition			
Compton's Lane	C	Historic road visible on Civil War era maps	x	x	x
Sudley Road grade	C	Route of Sudley road prior to 1940 realignment	x	x	x

*These features are not owned/managed by NPS.

CONSTRUCTED WATER FEATURES

Existing Condition

Several extant historic water features remain at Hazel Plain/Chinn Farm, including the Chinn House cistern and well, Chinn spring, a series of check dams, and culverts under North and South Chinn Drives. Locations of constructed water features are illustrated on Figure 3-27 and drawings EC-6 and EC-7.

Chinn House Cistern and Well

A two-foot high brick, beehive-domed cistern with a concrete cap and eight-inch wide iron pipe is located off the northeast corner of the Chinn House (see Figure 3-21 and Figure 3-22). The cistern retains a pipe that received water runoff from the roof of the house, directed by gutters and downspouts. Visible portions of the cistern are in fair condition, with some vegetative growth within the mortar. A well structure with a conical concrete cap lies four feet north of the cistern. The well head near the house retains an escutcheon that is embossed with "Etter Pump 507." This type of pump was patented in 1902, and was added to the site sometime before 1912, as it is visible in a photo of the Chinn House at this date (see Figure 3-21).[19] The well cap has some staining and rust but is overall in good condition.

Chinn Spring

Chinn Spring is located on the east bank of Chinn Branch near the intersection of North and South Chinn Drives. The spring is enclosed by a concrete casing, which is in fair condition. The spring housing was present by the 1930s. The top slab is cracked in half and offset from the square base, and the concrete exhibits some staining and moss growth (see Figure 3-23 and Figure 3-24).

Check Dams

Remnants of a series of check dams are located to the east of the Chinn House. The check dams are situated on drainages along the eastern slope of Chinn Ridge, and are constructed as low berms constructed of rocks meant to reduce the velocity of water runoff. A swale extends from the downhill side of each check dam. The check dams are situated within clusters of trees, reducing their visibility on the landscape. A date of construction for the check dams is not known.

Figure 3-21. Southeast corner of Chinn House, 1912. The lean-to housing the cistern and water pump is visible on the corner of the house; the gutters extending to this shed connected to the cistern (MANA Archives)

Figure 3-22. Chinn House cistern and well, 2017 (QEA)

Figure 3-23. Chinn Spring casing is visible on the east (left) side of the image during WPA construction of the road, ca. 1936 (MANA Archives)

Figure 3-24. Chinn Spring casing, 2017 (MANA, Jim Burgess)

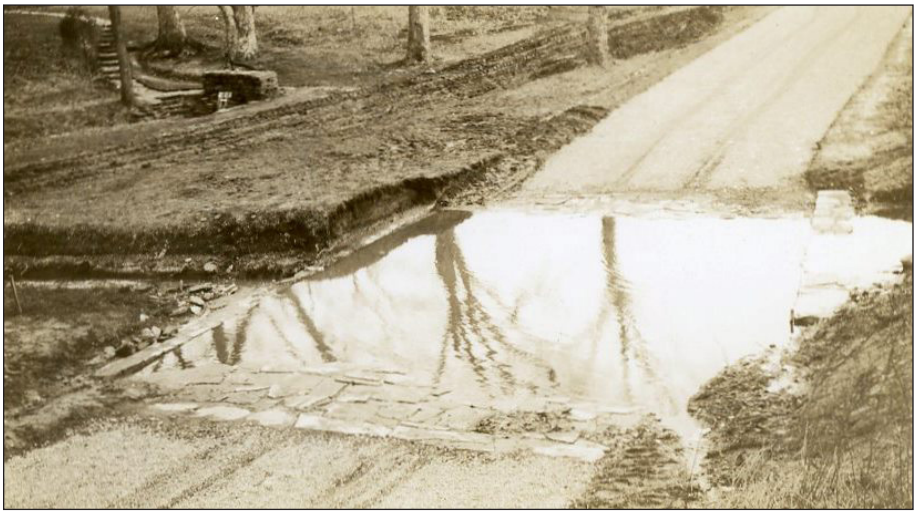


Figure 3-25. Ford over Chinn farm road in location of future culvert, ca. 1936 (MANA Archives)

Figure 3-26. North side of southern culvert over South Chinn Drive, 2017 (QEA)

Culverts

North Chinn Drive Culvert

Sandstone-faced culverts are located on the north and south sides of North Chinn Drive where Chinn Branch passes under the road. The culverts were constructed in 1936 and are composed of rough-cut red sandstone in irregular courses set with lime mortar. The sandstone walls form retaining structures at the ends of three corrugated metal culverts that pass beneath the road. The culverts are in fair condition, with some undercutting of sandstone blocks where the mortar has been eroded away by the stream.

South Chinn Drive Culvert

Sandstone-faced culverts are located on the east and west sides of South Chinn Drive where Chinn Branch passes under the road. The culverts were constructed in 1936 and are composed of rough-cut red sandstone in irregular courses set with lime mortar. The sandstone walls form retaining structures at the ends of three corrugated metal culverts that pass beneath the road. The culverts are in poor condition. The mortar has been completely eroded in some locations near the waterline, and several sandstone blocks are detached (see Figure 3-25 and Figure 3-26).

Analysis

Table 3-6 provides a list of contributing constructed water features. Historically, the Chinn Ridge landscape was considered "well-watered." The site is traversed by numerous streams, and includes several springs and seeps. To handle the water flowing from the landscape and provide water for everyday use, the cistern, well, and check dams were constructed. The Chinn House was serviced by a well and cistern located near the northeast corner of the home, and remnants of these features remain in place near the house foundation. Prior to its demolition, the well and cistern were enclosed within a lean-to shed extending from the house. A water pump was present on site as late as 1981. Figure 3-21 illustrates that gutters connected to the cistern from the side of the house.

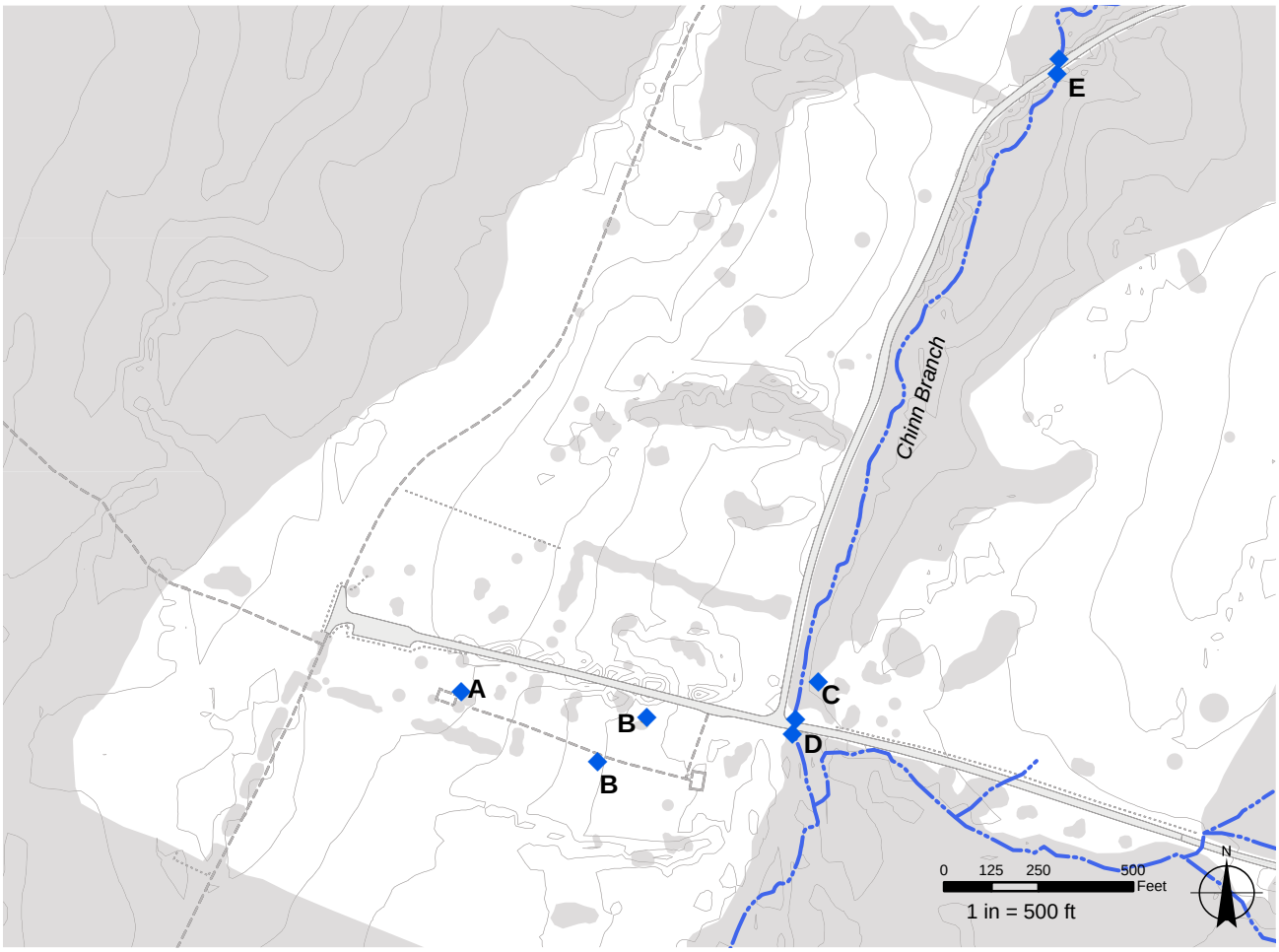
The spring was an important water source during development of the plantation, and was noted on multiple battle maps. The spring housing itself appears to have been a later addition that likely dates to the Bull Run Recreational Demonstration Area of the mid-1930s. It is visible in photos of WPA road construction (see Figure 3-25). The culverts were also added during Bull Run Recreational Demonstration Area development during the 1930s, replacing a farm ford across Chinn Branch (see Figure 3-25).

All constructed water features within the study area date to the periods of significance, and are extant in their original locations on the landscape. The constructed water features within the study area retain integrity of location, setting, design, materials, workmanship, feeling, and association, and contribute to the periods of significance.

Table 3-6. Constructed Water Features Analysis

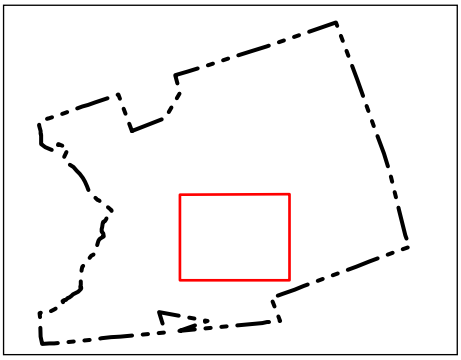
FEATURE	C/NC/ NC-C	RATIONALE	ASSOCIATED PERIOD		
			1769-1860	1861-1865	1905-1940
Chinn House Cistern	C	Constructed as part of 18th and 19th century plantation development to provide water to Chinn Farm	x	x	x
Chinn House Well	C	Constructed as part of 18th and 19th century plantation development to provide water to Chinn Farm	x	x	x
Chinn Spring	C	Spring is indicated on Civil War era maps. Casing likely constructed as part of 1936 Bull Run Recreational Demonstration Area site development.	x	x	x
Check Dams	C	Constructed as part of 18th and 19th century plantation development to control water flow down slope of Chinn Ridge.	x	x	x
Culverts on North Chinn Drive	C	Added as part of 1936 Bull Run Recreational Demonstration Area road development			x

Figure 3-27. Constructed water features



Legend

- Contributing constructed water feature
- Chinn Ridge CLR Study Area
- Diagram location
- Stream
- **A** Well and cistern at Chinn House foundation
- **B** Check dam
- **C** Chinn spring
- **D** South Chinn Road stone culvert
- **E** North Chinn Road stone culvert



SMALL-SCALE FEATURES AND OBJECTS

Small scale features within the study area include monuments and markers, fences and gates, signs, and cannons. The locations of small-scale features are identified on drawings EC-1 through EC-7.

Existing Condition

Monuments and Markers

Monuments to important individuals and regiments that were involved in the First and Second Battles of Manassas were placed in the study area beginning in the early 1900s. There are currently five monuments and one grave marker remaining in the study area; several other features that were historically present have been lost.

Fletcher Webster Monument

The Fletcher Webster Monument monument is located about 600 yards northeast of the Chinn House remains on the eastern crest of Chinn Ridge (see Figure 3-28). It was placed in 1914 to honor Union Colonel Fletcher Webster, the son of Daniel Webster. The monument consists of a 46-inch diameter granite boulder from Fletcher Webster's home in Marshfield, Massachusetts with a bronze plaque resting on a red sandstone base. The text on the plaque reads:

In Memory of/Colonel Fletcher Webster
who fell here August 30, 1862
while gallantly leading his regiment
the 12th Massachusetts Volunteers.

This Memorial was dedicated October 21, 1914
By survivors of his regiment and
Fletcher Webster Post, G.A.R.
of Brockton, Mass.
He gave his life for

The principles laid down by his father
Daniel Webster
"Liberty and Union
Now and forever, one and inseparable."
This boulder was taken from
the Webster Place, Marshfield, Mass.

The monument is in fair condition. There is some staining on the boulder. Portions of moss growth on the brick and cement slab base are causing limited damage to the mortar.

The monument sits within a one-acre parcel that is owned by the Webster Monument Trust Foundation. This monument, and the adjacent Texas Memorial, are within the legislated boundary of Manassas National Battlefield Park, but outside of the property owned by the National Park Service.

Texas Memorial

In 2012, a monument was placed 60' south of the Fletcher Webster Monument by the State of Texas (see Figure 3-29). The monument is dedicated to units from Texas who fought on Chinn Ridge during the Second Battle of Manassas. The text inscribed on the granite slab is described below.

On obverse:

TEXAS
REMEMBERS THE VALOR AND DEVOTION OF HER SOLDIERS WHO PARTICIPATED IN THE BATTLE OF SECOND MANASSAS, VIRGINIA – AUGUST 28-30, 1862.

ON THIS FIELD, CONFEDERATE GEN. ROBERT E. LEE'S ARMY OF NORTHERN VIRGINIA WON THE DECISIVE BATTLE OF THE NORTHERN VIRGINIA CAMPAIGN, AGAINST UNION MAJ. GEN. JOHN POPE'S ARMY OF VIRGINIA. ARRIVING ON THE SECOND DAY, AUGUST 29TH, CONFEDERATE MAJ. GEN. JAMES LONGSTREET'S WING TOOK POSITION OPPOSITE POPE'S LEFT FLANK. LATE THAT AFTERNOON, BRIG. GEN. JOHN BELL HOOD'S TEXAS BRIGADE SAW ITS FIRST COMBAT OF THE ENGAGEMENT, ADVANCING INTO THE UNION LINE AT GROVETON. THEIR POSITION UNTENABLE, THE BRIGADE WITHDREW THE FOLLOWING MORNING. MISINTERPRETING CONFEDERATE MANEUVERS AS A RETREAT, GEN. POPE ORDERED ANOTHER ATTACK ON GEN. STONEWALL JACKSON'S POSITION ON AUGUST 30TH. WITH THE HELP OF GEN. LONGSTREET'S ARTILLERY THE UNION ATTACK WAS REPULSED. GEN. LONGSTREET'S FIVE DIVISIONS THEN COUNTERATTACKED IN ONE OF THE LARGEST SIMULTANEOUS MASS ASSAULTS OF THE WAR. HOOD'S TEXAS BRIGADE LED THE ADVANCE WITH THE ENTIRE WING PIVOTING ON THE BRIGADE. IN THE ENSUING COMBAT HOOD'S TEXAS BRIGADE OVERWHELMED THE 5TH AND 10TH NEW YORK ZOUAVES AT GROVETON AND DROVE OFF A BRIGADE OF PENNSYLVANIA RESERVES. THEIR EFFORTS CLIMAXED WITH THE CAPTURE OF KERN'S PENNSYLVANIA BATTERY. ALTHOUGH THE TERRAIN AND STUBBORN UNION RESISTANCE ON CHINN RIDGE ULTIMATELY BROKE THE TACTICAL INTEGRITY OF THE UNIT, THE TEXAS BRIGADE CONTRIBUTED SIGNIFICANTLY TO THE COLLAPSE OF THE UNION LEFT FLANK WHICH FORCED POPE'S RETREAT THAT NIGHT AND THEY OPENED THE WAY FOR LEE'S INVASION OF MARYLAND.
ERECTED BY THE STATE OF TEXAS 2012.

On reverse:

TEXAS UNITS ENGAGED IN THE BATTLE OF SECOND MANASSAS, VA
BRIG. GEN. JOHN BELL HOODS' BRIGADE
1ST TEXAS VOLUNTEER INFANTRY REGIMENT
4TH TEXAS VOLUNTEER INFANTRY REGIMENT
5TH TEXAS VOLUNTEER INFANTRY REGIMENT
18TH GEORGIA VOLUNTEER INFANTRY REGIMENT
HAMPTON'S LEGION, SOUTH CAROLINA (8 INFANTRY COMPANIES)
TEXAS UNITS FORMED THE MAJOR PORTION OF HOOD'S BRIGADE, THUS IT WAS COMMONLY KNOWN AS THE TEXAS BRIGADE. BUT THE 18TH GEORGIA, HAMPTON'S LEGION, AND LATER THE 3RD ARKANSAS WERE INTEGRAL PARTS OF THE BRIGADE. TEXAS REMEMBERS AND HONORS HER SONS AND THOSE OF HER SISTER STATES WHO
FOUGHT WITH THEM. THEY SLEEP THE SLEEP OF THE BRAVE.

The monument is in good condition. It sits on the southern edge of the one-acre parcel owned by the Webster Monument Trust Foundation.

14th Brooklyn Memorial

A memorial to the dead of the 14th Brooklyn Regiment is located on the crest of a rise on the north side of the study area, approximately 800' to the west of Groveton (see Figure 3-30). The monument was placed in 1906. It is situated in an open field with expansive views to the west, south, and east, including historic buildings at Groveton. Two interpretive waysides and two cannon share the crest of the hill with the memorial; the monument itself is surrounded by a low wrought iron fence. The Groveton Confederate Cemetery is located immediately to the north of the monument, on the opposite side of Lee Highway. From the 14th Brooklyn Memorial, the obelisk erected in memory of the Confederate dead is partially visible through woody vegetation.

The monument consists of a four-sided, 10-foot tall granite stelae situated on a curved granite plinth. The stelae is topped with a pyramidal cap, and the entire monument sits on a square granite base. Memorial inscriptions are located on the north face of the monument. Near the top of the stelae is a circular bronze plaque featuring the seal of the State of New York. Below this is a large commemorative bronze plaque, and just above the plinth is carved "Brooklyn Fourteenth." The monument is in good condition, with limited staining on the pillar. The plaque reads:

14TH REGIMENT N.Y.S.M.
(84TH REGIMENT N.Y. VOLS)

This monument is erected in
commemoration of the dead of
the regiment in the battles of
FIRST BULL RUN, JULY 21, 1861
GAINESVILLE, AUGUST 28, 1862
GROVETON, AUGUST 29, 1862
SECOND BULL RUN, AUGUST 30, 1862

In these and other engagements in
which the regiment participated until
mustered out of the United States
Service June 6, 1864, the loss in killed
and wounded aggregated about six
hundred officers and enlisted men.

5th New York Memorial

A memorial to the dead of the 5th New York Volunteer Infantry is situated on a rise just to the north of Youngs Branch (see Figure 3-31). The monument is 208 feet northeast the 10th New York Memorial; the two monuments are aligned on the crest of the hill in a roughly northeast-southwest orientation. Both monuments are located immediately east of a parking lot and adjoining sidewalk. The monument was placed in 1906. The monument is surrounded by a low decorative wrought iron fence, and is in good condition.

The 12' high monument consists of a large, rectangular gray granite die set on a chamfered plinth. "Duryee Zouaves" is carved into the plinth. It is topped with a tapered cap finished with a variation of a cross pattee. A brass "5" is set into the center of the cross. A circular bronze plaque with the seal of the State of New York is mounted in the center of the cap. A large bronze plaque is mounted to the northwest face of the die, and reads:

ERECTED BY THE STATE OF NEW YORK
SEPTEMBER 29, 1906,
TO COMMEMORATE THE HEROIC SERVICE OF THE 5th REGIMENT
NEW YORK VOLUNTEER INFANTRY
(DURYEE ZOUAVES)

Here, about 4 p.m. August 30, 1862, the regiment, 482 strong, supported Hazlett's Battery, "D" 5th U.S. Artillery, then attacked by a division of the victorious Confederates. The Regiment stubbornly withstood this force, and checked its advance, until the Battery had withdrawn.
In holding this position, the regiment suffered the greatest loss of life sustained by any infantry regiment, in any battle, during the entire civil war.
The casualties here: killed or mortally wounded, 124; wounded, 223. Both color bearers, and seven out of eight of the color guard were killed; but the colors were bought with honor, off the field.

10th New York Memorial

A memorial to the dead of the 10th New York Volunteer Infantry is situated on a rise just to the north of Youngs Branch (see Figure 3-32). The monument is 208 feet southwest of the 5th New York Memorial. It was placed in 1906.

The 11' tall monument is comprised of a series of rectangular granite blocks. The monument sits on a rectangular, granite base, upon which sits a chamfered plinth engraved with "10th New York Vol. Infantry." Upon the plinth is a rectangular die with a large bronze plaque. The plaque reads:

Erected by the State of New York, to commemorate the
patriotic services of the 10th Reg't New York Volunteers.
NATIONAL ZOUAVES.
Mustered into the U.S. Service April 27th, 1861,
Reorganized as a Battalion, April 27th, 1863.
Participated in 23 battles and campaigns, including the
surrender of the Confederate Army at Appomattox, VA, April 9th, 1865.
Here, August 30th 1862 the Regiment assisted in
resisting the assault of a superior force of the
enemy, losing nearly a third of its number, one officer
and thirty men were killed or mortally wounded.
"Braver men than those who fought and fell that
day could not be found"
Report of Col. C. K. Warren, Com'd Brigade.

The die is topped with a smaller block mounted with a bronze plaque bearing the seal of the State of New York, and finished with a pyramidal cap. The monument is in good condition.

Hooe Cemetery Grave Marker

Within the walls of the Hooe Cemetery is a small marble slab marking the grave of Bernard Hooe, Sr. The marker is a replacement for an earlier gravestone that was vandalized sometime after 1950. It was placed in 2007, and is in good condition (see Figure 3-33).

Figure 3-28. Fletcher Webster memorial, 2017 (QEA)

Figure 3-29. Texas memorial, 2017 (QEA)

Figure 3-30. 14th Brooklyn memorial with iron fence, facing southwest, 2017 (QEA)

Figure 3-31. 5th New York memorial with iron fence, 2017 (QEA)

Figure 3-32. 10th New York memorial, looking southwest, 2017 (QEA)

Figure 3-33. Hooe cemetery marker, 2017 (QEA)

Fences and Gates

Worm fences

Throughout the study area, the National Park Service has constructed a number of worm fences. This fence type is ubiquitous throughout Manassas National Battlefield Park and the rural Piedmont landscape. These are typically located along roadways both along the boundaries of the park and along internal park routes. The worm fences are constructed with split rails (see Figure 3-34). Although fence condition varies within the study area, most fences are in fair condition with some weathering and very few collapsed sections. At the time of field investigations in October 2017, fences were in the process of being reconstructed in the northwestern corner of the study area.

Post and Board Fence

An enclosure interpreted as an animal pen is located to the southwest of the Chinn House, along a historic fence line on the historic road trace that leads to Compton's Lane. The enclosure is constructed as a five-board post and board fence fastened with modern cut nails. It may have been used as an animal pen, although it is not formally interpreted by the park.[20] The fence is weathered and in poor condition. Portions of the boards have collapsed (see Figure 3-35).

Decorative Iron Fences

Decorative iron fences surround the 14th Brooklyn Memorial, 5th New York Memorial, and 10th New York Memorial monuments. The fences are composed of a series of black iron panels that are each roughly six feet long, with ornamental posts at the corners and the gated entrance. Each fence has a three-foot six-inch high corner and gate posts and square vertical pickets spaced six inches apart, alternating between two and three feet in height. The pickets and posts have cast iron balltip finials at their upper termini. At each of the gates, the monument fences feature a small shield emblazoned with "Stewart Iron Works, Cincinnati, Ohio." The fences are cast iron. They include paneled designs comprised of repeated decorative features and dimensions. Small amounts of rust are present where paint has chipped. The fences were built in 1906 as part of the original installation and dedication. All three fences are in good condition. The fence surrounding the 14th Brooklyn Memorial encloses an 18-foot by 18-foot area. Two decorative gate posts flank a four-foot wide gate in the center of the eastern fence line. The 5th New York Monument Fence encloses a 22-foot by 16-foot area. A four-foot wide gate flanked by the two decorative gate posts marks the center of the northwestern fence line. The fence surrounding the 10th New York Memorial is encloses a 22-foot by 16-foot area. In the center of the northwestern fence line is a four-foot wide gate flanked by the two decorative gate posts.

New York Avenue Gate

One ornamental entrance gate is situated at the north end of New York Avenue on the east side of the road (see Figure 3-36). It was once part of a double gate emblazoned with "5th New York Volunteer Infantry." Due to widening of New York Avenue, the gate no longer spans the full width of the road and is not functional. The western gate post was struck by a vehicle in 2015 and is waiting reinstallation; remnants of its foundation are visible along the side of the road.

The remaining eastern gate consists of a large iron post supporting a picketed iron gate with decorative finials. The decorative, cast iron gate post is eight feet in height and one foot square. It has raised molding, emblems, shields, and wreaths, and is topped with a stepped cap and a cast iron Iron Cross. Similar to the fences surrounding the three New York Monuments, the gate is cast iron. It was erected on the site at the same time as the monuments, and is in good condition.

Chain-Link Fence

A chain-link fence surrounds the maintenance area, including the three primary maintenance buildings. The fence is in good condition. Metal swing gates provide access to the enclosed area on the north side of the maintenance area, connecting to a service road, and on the south side of the maintenance area, connecting to the maintenance drive. The fence does not completely enclose the storage area used by maintenance and facilities.

Access Gates

Contemporary wood gates are located along New York Monuments Avenue, at North and South Chinn Drives at the entrance and exit to Chinn Ridge, and at the Maintenance Access Road. The gates restrict access to the site after operational hours. They are in good condition.

Signs

Interpretive waysides

Eight (8) modern interpretive waysides re located within the study area along Chinn Ridge Road; at the Chinn House; along North Chinn Drive (the entrance road); at the 5th and 10th New York Monuments; and at the 14th Brooklyn Monument. The interpretive waysides consists of two-foot by three-foot color panels supported by metal posts. They provide contextual information to the visitor, with a focus on overviews of major battle movements, events, and significant people. The waysides have been updated within the past 6 years and are in good condition, and the view from each wayside clearly relates to its subject matter.

The panel located along the entrance at North Chinn Drive titled "Short of Total Victory" faces toward the direction of one-way traffic, which may cause some visitors to miss the panel.

Troop Position Markers

Six (6) troop position markers, are located along trails at Chinn Ridge and in the New York Monuments area. The signs were installed in 1988. At eighteen inches square, the wayside markers are smaller than the interpretive waysides, and provide detailed information on specific battle events such as quotes from battle accounts.

Wayfinding signs

Wayfinding signs within the study area consist of panels with site maps, wood directional signs, and plastic trail marker posts that orient visitors to the trails and site features within the study area.

Cannon

Two 12-pounder Napoleons are situated on Chinn Ridge to the southwest of the Fletcher Webster and Texas Memorials. They face southwest, toward the Chinn House foundation (see Figure 3-37). Two additional 12-pounder Napoleon cannon are located immediately to the north and south of the 14th Brooklyn Memorial. The cannon face west toward Groveton. The cannon tubes are in generally good condition; however, three of the four gun carriages are in poor condition. One carriage has recently been refurbished.

Analysis

Table 3-7 provides a list of contributing, non-contributing compatible and non-contributing small-scale features. These features are also illustrated on Figure 3-38. The small-scale features that date to the periods of significance include the 14th Brooklyn Monument, the 5th New York Monument, and the 10th New York Monument. These features are extant from the commemoration and memorialization period of significance and contribute to the cultural landscape. They retain integrity of location, design, setting, materials, workmanship, feeling, and association. The Hooe Cemetery marker is a recent addition to the landscape, and is compatible but does not contribute to the historic character of the study area.

Most of the small-scale features present within the study area cultural landscape are recent additions to the site for interpretive or operational use, and do not contribute to the historic landscape.

Figure 3-34. Virginia worm fence on Chinn Ridge, 2017 (QEA)

Figure 3-35. Post and board fence (possible animal fence), located southwest of Chinn house, 2017 (QEA)

Figure 3-36. New York Avenue gate along Lee Highway, 2017 (QEA)

Figure 3-37. Two cannon in the position of the 5th Maine Battery on Chinn Ridge, 2017. The cannon face southwest (QEA)

Due to the ephemeral nature of wood fences, no contributing wood fences are extant within the study area. Worm fences were a common fence type throughout the periods of significance, and are evidenced in 1860s photographs of the battlefields. Fences were a critical feature in the landscape during development of plantations to define crop fields and contain livestock. During the First and Second Battles of Manassas, fences served to conceal the location of troops, and were later torn down and used for fuel by occupying forces.

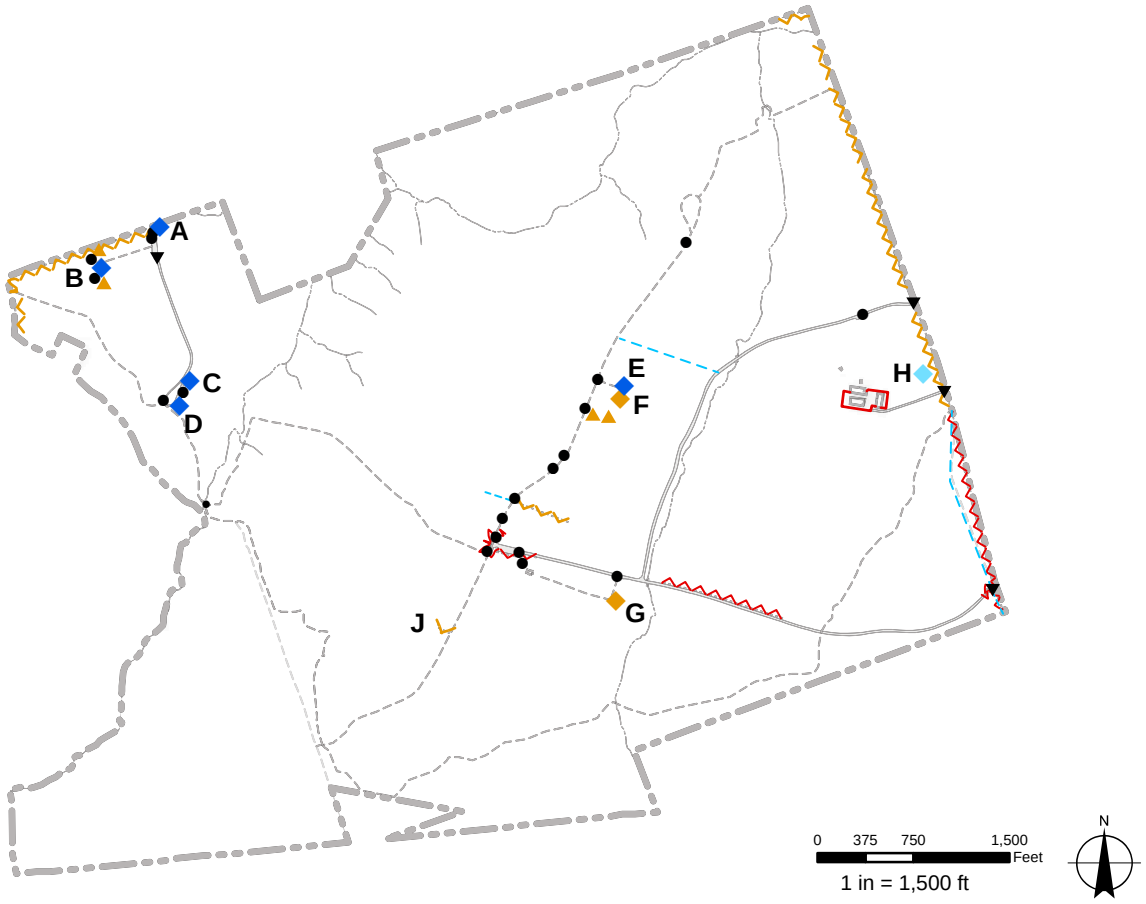
The current worm fences are compatible but not contribute to the cultural landscape. Some of the recreated Worm fences have been placed in the location of historic fences, as indicated in Figure 3-38. Broadscale application of worm fence type throughout the study area may confuse interpretation, as this fence type is also placed in nonhistoric locations. The recreated Worm fences are constructed with split rails, which is not an entirely authentic technique, Period photographic evidence indicates that local fences in Manassas were more often made with cut saplings, which made construction far less labor intensive.[21]

Similarly, the post and board fence located west of the Chinn House foundation is representative of a historic fence type, but is a recent construction that does not contribute to the cultural landscape. Modern cut nails were used in the assembly of the post and board fence, which suggests that it does not date from the period of significance.

The iron fences surrounding the New York Monuments and 5th New York gate are original to the commemoration and memorialization period, and contribute to the character of the historic landscape.

The cannon located within the study area have been placed in key artillery locations used during the Second Battle of Manassas. They are not original to the battles, but are representative of the artillery used at Manassas and aid in understanding battle movements. They are compatible but non-contributing to the historic landscape.

Figure 3-38. Small-scale features



Legend

- Contributing monument
- Missing monument
- Non-contributing compatible cannon
- Non-contributing compatible monument
- Non-contributing compatible fence in historic fence location
- Missing fence (identified by FFF CLR)
- Non-contributing wayside or sign
- Non-contributing gate
- Non-contributing worm fence
- Non-contributing chain-link fence
- Existing trail
- Chinn Ridge CLR Study Area Boundary

A 5th New York Gate
B 14th Brooklyn Monument
C 5th New York Monument
D 10th New York Monument
E Fletcher Webster Monument
F Texas Monument
G Hooe Headstone
H Missing 7th Georgia Marker (approximate)
J Post and board fence

Table 3-7. Small-Scale Features Analysis

FEATURE	C/NC/ NC-C	RATIONALE	ASSOCIATED PERIOD		
			1769-1860	1861-1865	1905-1940
Fletcher Webster Monument*	C	Constructed in 1914 on Webster monument inholding.			x
Texas Memorial*		Constructed in 2012 on Webster monument inholding.			
14th Brooklyn Monument	C	Constructed in 1906.			x
5th New York Monument	C	Constructed in 1906.			x
10th New York Monument	C	Constructed in 1906.			x
Hooe Grave Marker	NC-C	Replacement of earlier historic marker added to the site in 2007.			
Decorative Iron Fences at 14th Brooklyn Monument	C	Constructed in 1906 at the time that the associated Monument was erected.			x
Decorative Iron Fences at 5th New York Monument	C	Constructed in 1906 at the time that the associated Monument was erected.			x
Decorative Iron Fences at 10th New York Monument	C	Constructed in 1906 at the time that the associated Monument was erected.			x
New York Avenue Gate	C	Constructed in 1906.			x
Virginia Rail/Worm Fences	NC-C	Portions are in the location of historic fences.			
Chain-link fence	NC	Modern addition.			
Post and Board Fence	NC-C	Modern addition consistent with historic fence style.			
NPS Access Gates (4)	NC	Modern addition.			
Interpretive waysides (7)	NC	Modern addition.			
Troop position markers (6)	NC	Modern addition.			
Wayfinding signs	NC	Modern addition.			
Cannon on Chinn Ridge (2)	NC	Modern addition.			
Cannon at 14th Brooklyn Monument (2)	NC	Modern addition.			

*These features are not owned/managed by NPS.

VEGETATION

Existing Condition

Existing vegetation at Chinn Ridge consists of a mix of woodland, native grassland/meadow, mown turf, individual trees, and fenceline vegetation. The dominant vegetation type is successional woodland, which covers much of the formerly open cropland and pastureland at Chinn Ridge. Existing vegetation is illustrated on drawings EC-1 through EC-7.

Vegetation analysis within this report is based on field survey as well as a detailed vegetation survey completed for Manassas National Battlefield Park in 2011, as illustrated on Figure 3-39.[22] The vegetation communities described below have been consolidated for the purposes of this report.

Invasive exotic species are a concern within the battlefield park. The most common are shrubs and vines including amur honeysuckle (*Lonicera maackii*), autumn olive (*Eleagnus umbellata*), Japanese honeysuckle *(Lonicera japonica*), and English ivy (*Hedera helix*).[23]

Oak-Hickory Forest

Oak-hickory forests within the study area are comprised of two vegetation communities that were identified by the 2011 vegetation survey: Dry-Mesic Acidic Oak-Hickory Forests, and Hardpan Basic Oak-Hickory Forest. Dominant species within oak-hickory forest areas include white oak (*Quercus alba*), red oak (*Quercus rubra*), hickory (*Carya* spp.), white ash (*Fraxinus americana*), with understory species of eastern redbud (*Cercis canadensis*), flowering dogwood (*Cornus florida*), and deerberry (*Vaccinium stamineum*); and herbaceous groundcover including rock muhly (*Muhlenbergia sobolifera*) and eastern bottlebrush grass (*Elymus hystrix*) (see Figure 3-40).[24]

Hardpan Basic Oak-Hickory Forests are considered an uncommon or rare community in the Virginia Piedmont. Virginia pine may dominate this vegetation community in heavily disturbed sites that have previously been cleared. In these locations, the vegetation community may be similar in composition to successional forest.[25]

Successional Forest

Mixed successional forest is interspersed throughout the wooded areas of the study area, typically occurring in the locations of old farm fields that have been reclaimed by woody vegetation. Mixed successional forest is typically characterized by a very dense canopy of eastern red cedar (*Juniperus virginiana*) and other pine species and early successional deciduous species, with little

understory vegetation.[26] This vegetation type corresponds to the communities Successional Mixed Deciduous Forest, Successional Virginia Pine Forest, Successional Old-field Eastern Red-Cedar Forest, Successional Vine-Shrubland, and Planted Evergreen Forest identified in the 2011 vegetation survey.

Floodplain Forest

Floodplain forests are located in wet areas along streams and seepages. These forests are dominated by riparian species including tuliptree (*Liriodendron tulipfera*), box-elder (*Acer negundo*), American sycamore (*Platanus occidentalis*), American hornbeam (*Carpinus caroliniana*), Pin Oak (*Quercus palustris*), Swamp White Oak (*Quercus bicolor*), and jumpseed (*Polygonum virginianum*).[27] This type corresponds to the Tuliptree Small-Stream Floodplain Forest and Pin Oak - Swamp White Oak Seasonal Pond vegetation communities identified in the 2011 vegetation survey of Manassas National Battlefield Park.

Native grassland/meadow managed through hay lease

Throughout the study area, NPS leases hayfields to maintain historic scenes and land use patterns that existed at the time of the Civil War. The grasses within these fields consist of native warm-season species palatable to livestock. The vegetation is similar to other native grasslands within the study area, but is mown and baled annually by farmers. Hay harvesting is a cost-effective means of maintaining open space without placing additional maintenance burdens on park staff. As of 2017, NPS maintains approximately 177 acres within the study area by leasing fields for hay cultivation.[28] Open areas along Chinn Ridge, Bald Hill, the fields surrounding the 14th Brooklyn Monument, and several fields along Lee Highway and Sudley Road are managed as hayfields (see Figure 3-41). These areas correspond to the Pasture/Hay vegetation community identified by the 2011 vegetation survey of Manassas National Battlefield Park, as well as additional areas that were noted as hayfields during site investigations.

Native grassland/meadow for viewshed and habitat management

In portions of the park, native grassland/meadow has been established in historically open areas to manage views and provide habitat for quail and other wildlife. This vegetation type corresponds with the Successional Meadow/ Grassland community identified by the 2011 vegetation survey of Manassas National Battlefield Park. Due to encroachment of woody vegetation in open areas, some native grassland locations have changed since the 2011 survey. The community locations indicated in CLR drawings were verified during site investigations in 2017.

Native grassland occupies open space the east of the 5th and 10th New York Monuments. These areas are mown periodically to slow the encroachment of eastern red cedar, but are not harvested for hay. The native grasslands may include some individual large trees. Since this area was recently cleared of woody vegetation, the mowing regimen was not included in the 2016 Mowing Plan.

The Virginia Native Plant Society has a Manassas-based chapter that monitors the diverse native flora of the meadows and floodplain.[29]

Mown Lawn

NPS maintains select areas within the study area as mown lawn. Mown lawns include an approximately eight-foot buffer on either side of North Chinn Drive, South Chinn Drive, and New York Avenue; interpretive trails including portions of the Second Manassas Trail; and short trails to the 14th Brooklyn Memorial, and the Chinn House Ruins and Hooe Cemetery. Mown areas are also maintained to ensure visibility and general circulation around select features, including the Chinn House ruin, 14th Brooklyn Memorial, and Webster and Texas Memorials.

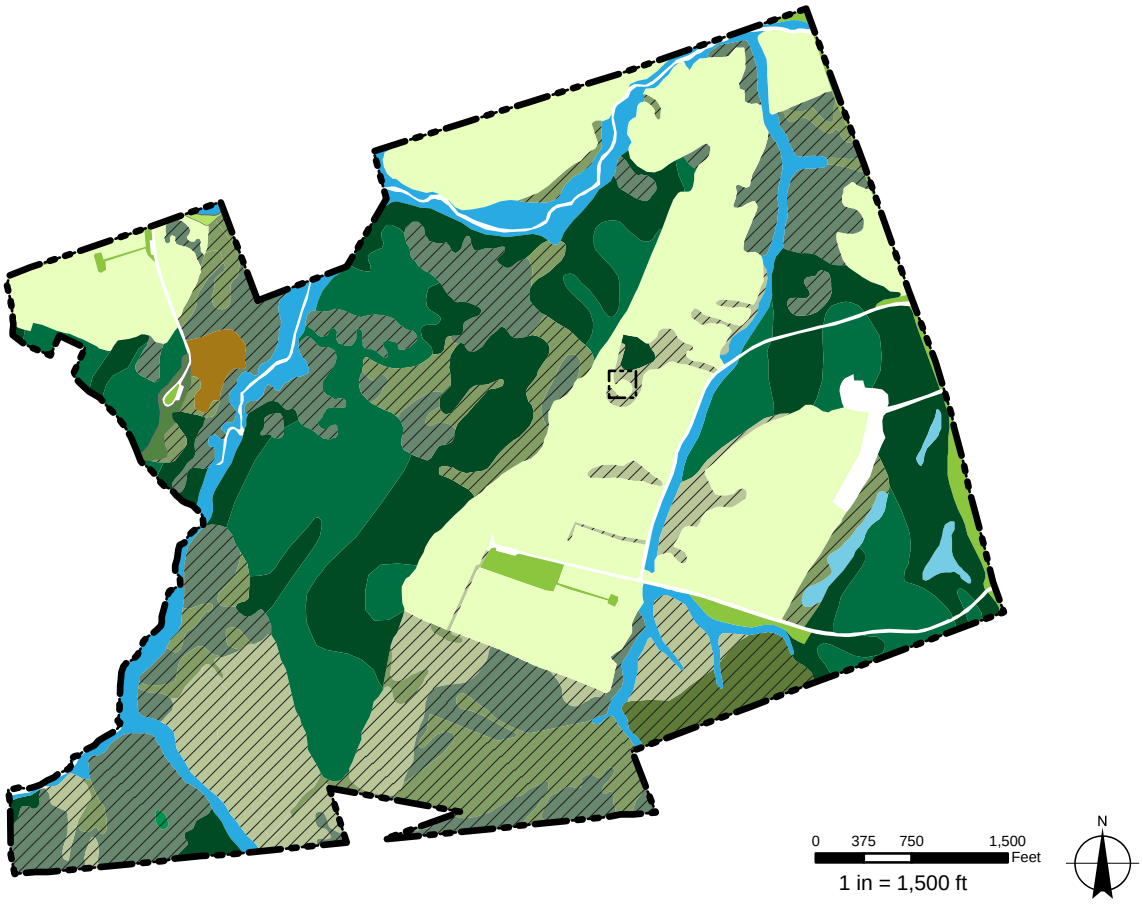
These mown lawns correspond with Class A Mowing Areas as defined in the 2016 Mowing Plan for Manassas National Battlefield Park. For Class A Mowing Areas associated with interpretive trails, grass is typically cut to a height of 2.5" to 3". For hiking trails and bridle trails grass is cut to a height of 3" to 6". Mowing is typically not done on slopes of more than 30 degrees unless required for visitor and traffic safety. Class A mowing areas total approximately 8.0 acres at Chinn Farm.[30]

Individual Trees and Fencerow Vegetation

Individual trees are scattered in the lawn immediately around the former Chinn House, including five (5) black walnut (*Juglans nigra*) trees and three (3) fruit trees (see Figure 3-42). Scattered red cedar is located throughout this area, some of which are over the remnants of archeological features.

Although wood fences are not retained within the study area from the period of significance, lines of red cedar trees identify the locations of historic fences. A number of these fencelines are visible immediately surrounding the Chinn Farms and extending to the northeast and southwest along Chinn Ridge (see Figure 3-43). Clusters of red cedar and other successional woody species also mark the locations of former outbuildings in the Chinn Farm core.

Figure 3-39. Vegetation Communities



Legend

Oak-Hickory Forests
- Dry-Mesic Acidic Oak-Hickory Forest
- Hardpan Basic Oak-Hickory Forest

Successional Forests
- Successional Mixed Deciduous Forest
- Successional Virginia Pine Forest
- Successional Old-field Eastern Red-Cedar Forest
- Successional Vine-Shrubland
- Planted Evergreen Forest

Floodplain Forests
- Tuliptree Small-Stream Floodplain Forest
- Pin Oak-Swamp White Oak Seasonal Pond

Native grassland/meadow
- Hayfield (managed under hay lease)
- Successional grassland/meadow (managed for open views and habitat)

Mown lawn
- Mown lawn

Notes and Sources

1. Vegetation survey, 2011, GIS Data, Manassas National Battlefield Park.
2. Limited edits have been made based on 2017 field investigations to indicate where successional meadow/ grassland have been overtaken by successional mixed deciduous species over the past 6 years.
3. Limited edits have been made based on 2017 field investigations to indicate where successional herbaceous wetland has been overtaken by floodplain forest species.

Figure 3-40. Oak-hickory forest along Second Manassas Trail, 2017 (QEA).

Figure 3-41. Hayfield near 14th Brooklyn Monument, 2017 (QEA)

Figure 3-42. Fencerow vegetation composed of red cedar trees near Chinn house foundation, 2017 (QEA).

Figure 3-43. Fruit tree near Chinn House foundation, 2017 (QEA).

Analysis

Table 3-8 provides a list of contributing and non-contributing vegetation. Locations of contributing and non-contributing vegetation are indicated on Figure 3-44. Historic records indicate that there were two primary vegetation types present within the Chinn Ridge cultural landscape during the three periods of significance: cultivated fields or pasture, and woodlands. Maps produced following the battles indicate that most of the study area was kept in pasture. A cornfield was located to the west of the Chinn House, and a garden immediately to the north (see drawings HP-2 and HP-3 in Chapter 2). Interspersed in the agricultural landscape were woodlots.

While the vegetation types present in the study area today are similar those during the period(s) of significance, there has been a shift in the overall composition of vegetation with the encroachment of large masses of successional forest. Hayfields create open spaces that are reflective of the agricultural character of the landscape, but are not representative of the diverse mixture of cultivated fields and pasture that characterized vegetation present at 19th century Piedmont farms.

Location of historic vegetation communities were developed through comparative analysis between vegetation documented on 1861 Atkinson map; 1878 Warren map; 1937 aerial photograph, 1937; 2017 aerial photograph, and 2011 vegetation survey. Historic documentation of vegetation on the 1861 and 1878 surveys was confirmed through the 1937 aerial photograph, 2017 aerial photograph, and 2011 vegetation survey. Analysis of existing woodlands reveals that many of the oak-hickory forests are present in the approximate location of historic woodlots. Although the woodlots are now intertwined with expanding successional mixed forests, they continue to contribute to the historic character of the landscape. Battlefield reforestation is considered a natural and reversible alteration to the landscape, and may protect ground surface and subsurface features associated with the battle. While the successional vegetation now present on the battlefield is noncontributing and impacts the setting of the battlefield, it does not destroy the battlefield's overall integrity.[31]

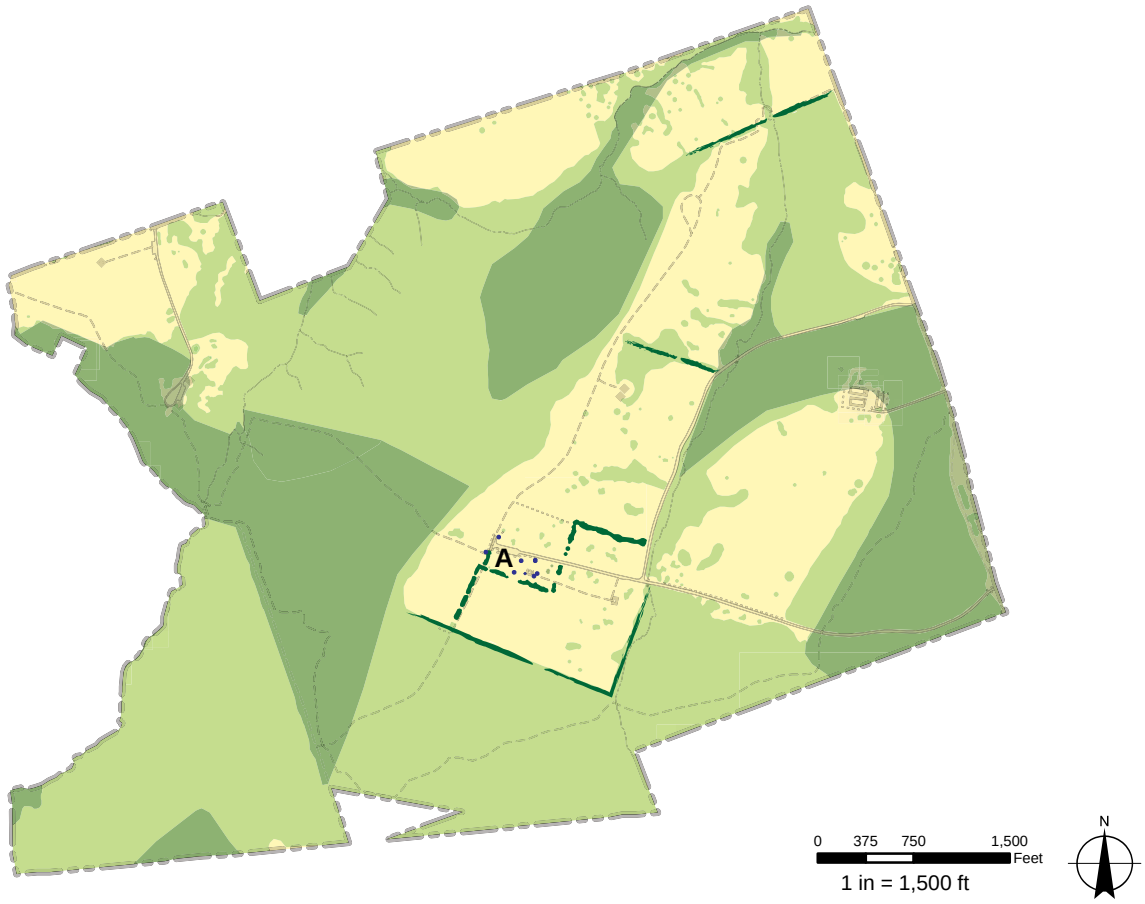
The individual black walnut trees located around the Chinn House may date to the period of significance. Alternatively, their forebears may have been original to the Bernard Hooe Sr. plantation. Fruit tree specimens were also identified in this area during a May 2018 site visit, which may be related to the orchard present during the commemoration and memorialization period. Based on guidance that is in development by the National Capital Region, the walnut and fruit trees within the vicinity may be considered legacy vegetation.

The fencelines defined by red cedar trees do not date to the period(s) of significance, but help to define the extent of the historic plantation landscape and are therefore compatible with the historic character of the landscape.

Table 3-8. Vegetation Analysis

FEATURE	C/NC/ NC-C	RATIONALE	ASSOCIATED PERIOD		
			1769-1860	1861-1865	1905-1940
Native grassland/meadow managed through hay lease	C	Consistent with cultivated field/pasture present in agricultural landscape.	x	x	
Oak-hickory forest	C	Consistent with historic woodlots, but has lost integrity due to intermixing with successional growth.	x	x	
Successional forest	NC	Grown in after period of significance			
Native grassland/meadow for viewshed and habitat management	NC-C	Recently cleared; clearing vegetation restores this area to a condition similar to the historic vegetation			
Mown lawn	NC	Modern vegetation treatment to provide for interpretation and recreation			
Individual walnut trees at Chinn House	C	Individual trees or their forebears may date to original Hooe plantation	x	x	x
Individual fruit trees at Chinn House	C	Individual trees or their forebears may date to late 18th and early 19th century agricultural practices at the farm			x
Fenceline vegetation	NC-C	Rows of trees identify the locations of historic fencelines.	x	x	x

Figure 3-44. Vegetation Analysis



Legend

- Native grassland/meadow in location of historic field
- Oak-hickory forest in location of historic woodlot
- Woodland (successional mixed forest, oak-hickory forest, or floodplain forest) in location of historic field
- A — Legacy walnut and fruit trees around Chinn House foundation
- Fencerow vegetation
- Chinn Ridge CLR Study Area

VIEWS

Existing Condition

Views at Manassas National Battlefield Park are primarily defined by topography and vegetation. Visitors experience expansive views of the landscape in three locations within the study area: at the 14th Brooklyn monument, along Chinn Ridge, and at the field south of the Maintenance Area (sometimes referred to as Bald Hill). Within the remainder of the study area, the majority of the landscape is wooded, enclosing views along roads and trails. The views present today greatly affect the ability of visitors to visualize historic conditions and understand the relationship of the landscape to the farming, battle, and commemorative activities. While vegetation obscures a number of historic views, woodlands also block views of modern intrusions into the study area, including development to the east, south, and west of the study area, and the maintenance facilities within the eastern portion of the study area.

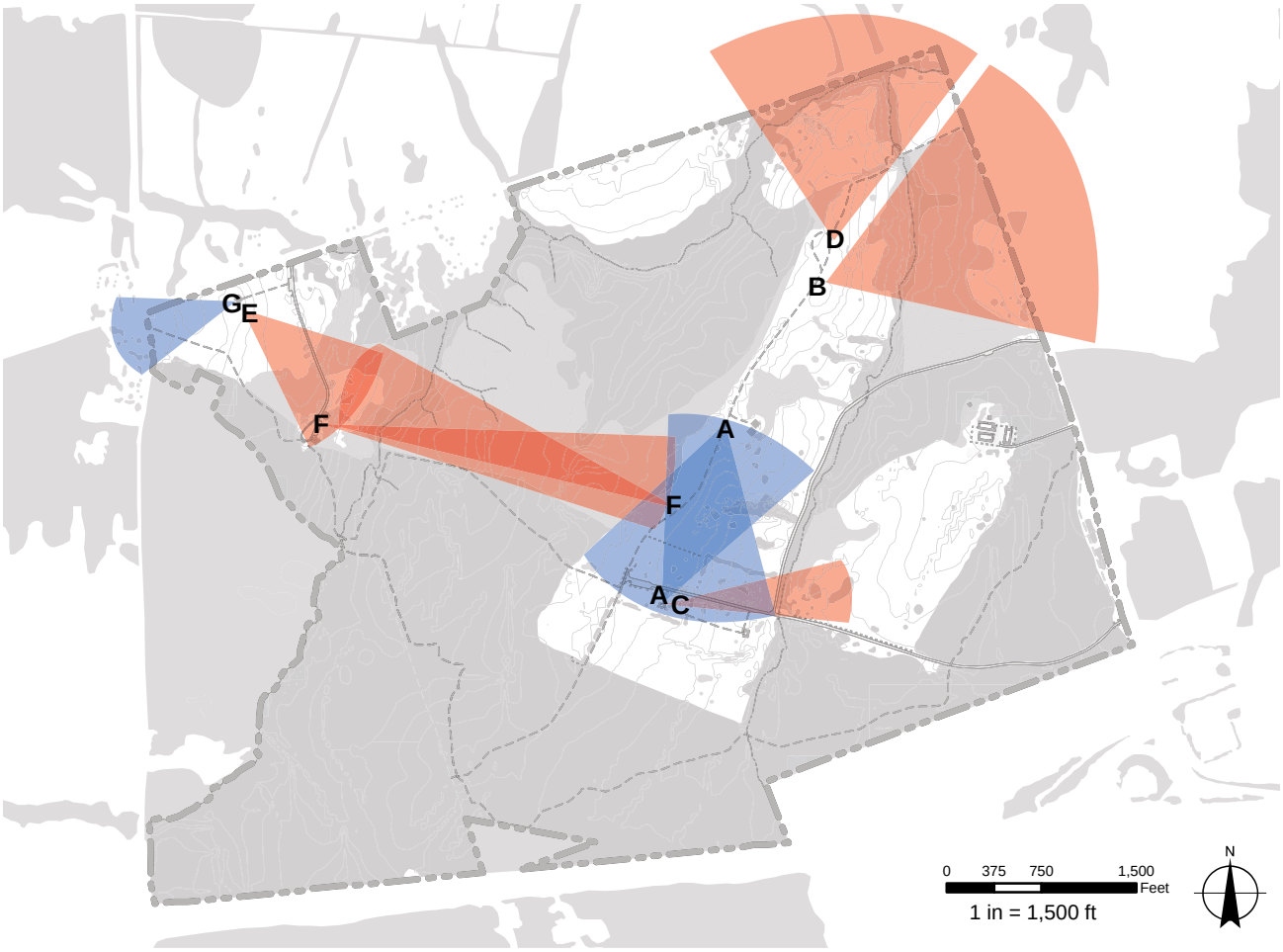
Analysis

Views were important to the development of plantations within the study area landscape and military operations during the First and Second Battles of Manassas. The Chinn House (Hazel Plain) was sited on elevated plateau that provided expansive vistas of the surrounding landscape. During the development of the plantations in the 18th and 19th centuries, these views provided the ability to monitor the plantation's fields and pastures. The views from these elevations also played a major role in the military movements of First and Second Manassas. Valleys and tree cover provided cover, while ridges and hills were utilized as observation points and locations from which to deploy artillery.

Although topography within the study area has not changed substantially since the periods of significance, successional vegetation growth has enclosed much of the study area, obscuring critical views to nearby landmarks and hindering interpretive efforts. From Chinn Ridge, Bald Hill, the Stone House, the Dogan House, Groveton, and Manassas Junction are no longer visible. Views are partially retained within the New York Monuments area, but have become similarly obscured in some areas by woody vegetation.

Seven views are described in the following section and illustrated on Figure 3-45. These views were identified based on their importance to plantation operations, military movements, and placement of commemorative features during the periods of significance. Extent and analysis of contributing views is based on comparison between existing and historic photographs where present, and battlefield descriptions and historic vegetation where photograph comparison is not possible.

Figure 3-45. Views Analysis



Legend

- Historic view retains integrity
- Historic view obscured by vegetation
- Chinn Ridge CLR study area boundary
- **A** View along Chinn Ridge
- **B** View from Chinn Ridge to Henry Hill
- **C** View from Chinn Ridge to Chinn Branch/Bald Hill
- **D** View from Chinn Ridge to Stone House Intersection/Buck Hill
- **E** View from 14th Brooklyn Monument to 5th and 10th New York Monuments
- **F** View between New York Monuments and Chinn Ridge
- **G** View from 14th Brooklyn Monument to Groveton

Two views that retain integrity (A and G). The other six views that were important during the period(s) of significance are blocked by vegetation and are no longer intact (B, C, D, E, F, and H). While the successional forest the blocks these views impacts the setting of the battlefield, it does not destroy the battlefield's overall integrity.[32] The views can be rehabilitated through vegetation management.

Locations of the views are illustrated in Figure 3-45. Table 3-9 provides a list of contributing (C) and missing (M) views.

A 2010 viewshed study of the park identified Chinn Ridge as a key public vantage point within the study area. From this key public vantage point, the study indicated that viewsheds at Chinn Ridge retained a high degree of historic character. The viewshed has minor man-made visual intrusions, such as utility poles, overhead lines, and high levels of automobile traffic on historic roads. According to this study, less than a quarter of the viewshed's visible lands are seriously threatened by development.[33] The views from Groveton, which include a portion of the New York Monuments Area, were also identified as retaining a high degree of historic character.[34]

Table 3-9. Views Analysis

FEATURE	C/NC/ NC-C/M	RATIONALE	ASSOCIATED PERIOD		
			1769-1860	1861-1865	1905-1940
View along Chinn Ridge (View A)	C		x	x	x
View from Chinn Ridge to Henry Hill (View B)	M	No longer retains integrity due to vegetative growth	x	x	x
View from Chinn Ridge to Chinn Branch/Bald Hill (View C)	M	No longer retains integrity due to vegetative growth	x	x	x
View from Chinn Ridge to Stone House Intersection (View D)	M	No longer retains integrity due to vegetative growth	x	x	x
View between Chinn Ridge and Groveton/New York Monuments (View E)	M	No longer retains integrity due to vegetative growth	x	x	x
View from 14th Brooklyn Monument to 5th and 10th New York Monuments (View F)	M	No longer retains integrity due to vegetative growth	x		x
View from 14th Brooklyn Monument to Groveton (View G)	C		x		x

Figure 3-46. View A.

Top. View along Chinn Ridge facing northeast toward Webster Monument, 2017. This was the view of the advancing Confederates moving east from the Chinn House during both battles (QEA).

Bottom. View along Chinn Ridge facing southwest, 2017. Facing this direction, Union artillery faced off against the Confederate advance during the Second Battle of Manassas (QEA).

View along Chinn Ridge (View A)

The axial viewshed extending northeast and southwest along Chinn Ridge was established as a primary sight line during development of the early plantation. During the Battle of Second Manassas, the view along the ridge northeast of the Chinn House was particularly important, as Union artillery pieces were oriented along this corridor in a brief but intense firefight to stave off Confederate troops advancing from the direction of the house. Today, the crest of Chinn Ridge remains mostly clear and reflects its historic appearance. Views are partially obscured by vegetation associated with an old fenceline midway along the ridge. Along the slopes of the ridge, postwar successional forest growth interrupts views to important nearby landmarks. The view retains integrity and contributes to the historic character of the landscape.

Figure 3-47. View B.

Top. View from Chinn Ridge to Henry Hill, 1940. Following clearing of vegetation in the late 1930s, the view between these two hills was reestablished (MANA Archives).

Bottom. View from Chinn Ridge east toward Henry Hill, 2017 (QEA).

View from Chinn Ridge to Henry Hill (View B)

This was an important viewshed during both First and Second Manassas, providing a critical visual connection between the troops on Chinn Ridge and their counterparts on Henry Hill. Though the view had been cleared in the 1930s for the Bull Run Recreational Demonstration Project, successional growth has since become established on the eastern slope, blocking this view. The view no longer retains integrity.

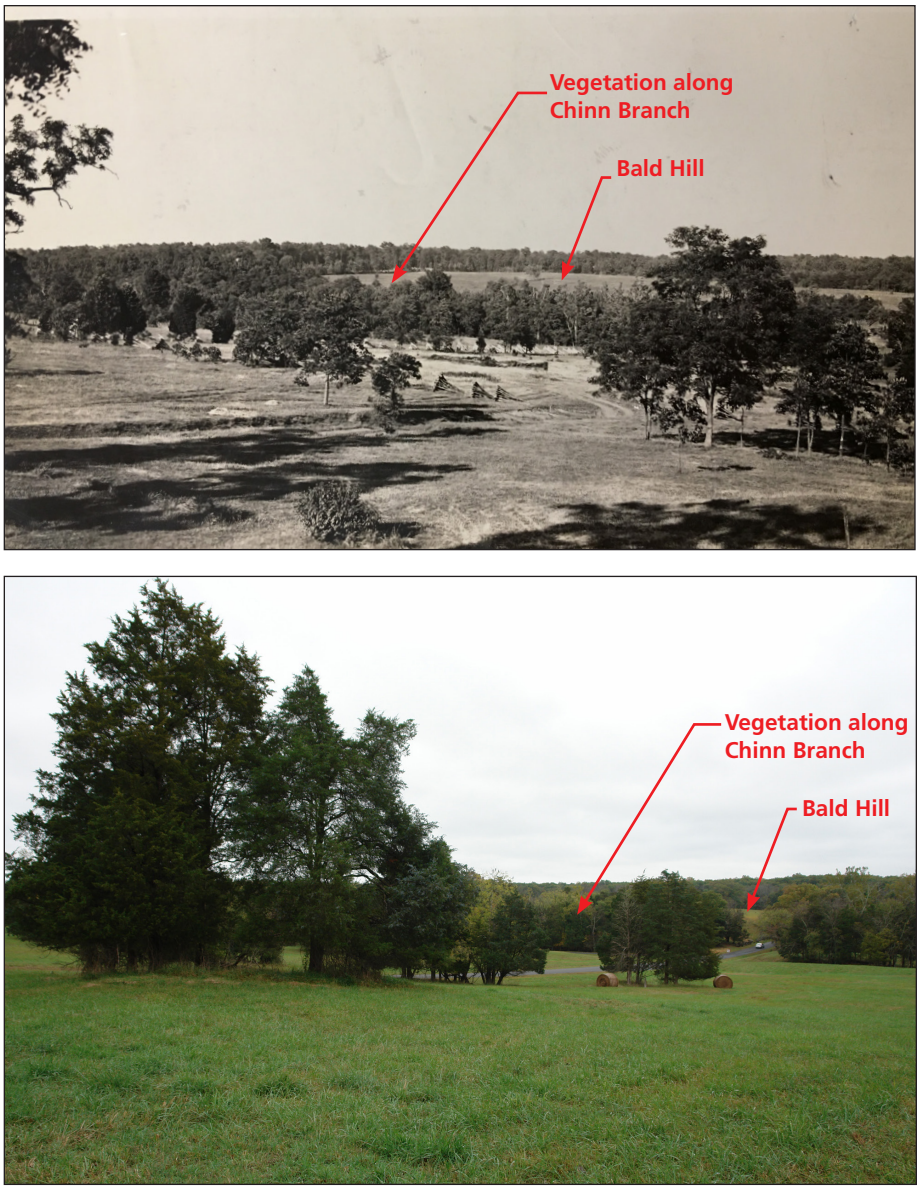


Figure 3-48. View C.

Top. View to northeast from Chinn House after clearing, June 1936 (MANA Archives).

Bottom. Similar view from Chinn Ridge to Bald Hill, 2017 (QEA).

View from Chinn Ridge to Chinn Branch/Bald Hill (View C)

From the Chinn House, the existing view extends to the southeast along the entry drive, ending in a partial view of the field that currently occupies Bald Hill. The view is partially obscured by the forest growth along Chinn Branch, which has now encroached upon most of the valley. During the First Battle of Manassas, this view was substantially more open, with only a discrete stand of trees providing cover for Jubal Early's Confederate troops along Chinn Branch.[35] Though a 1930s WPA project removed vegetation from this viewshed, the view has not been maintained and no longer retains integrity.

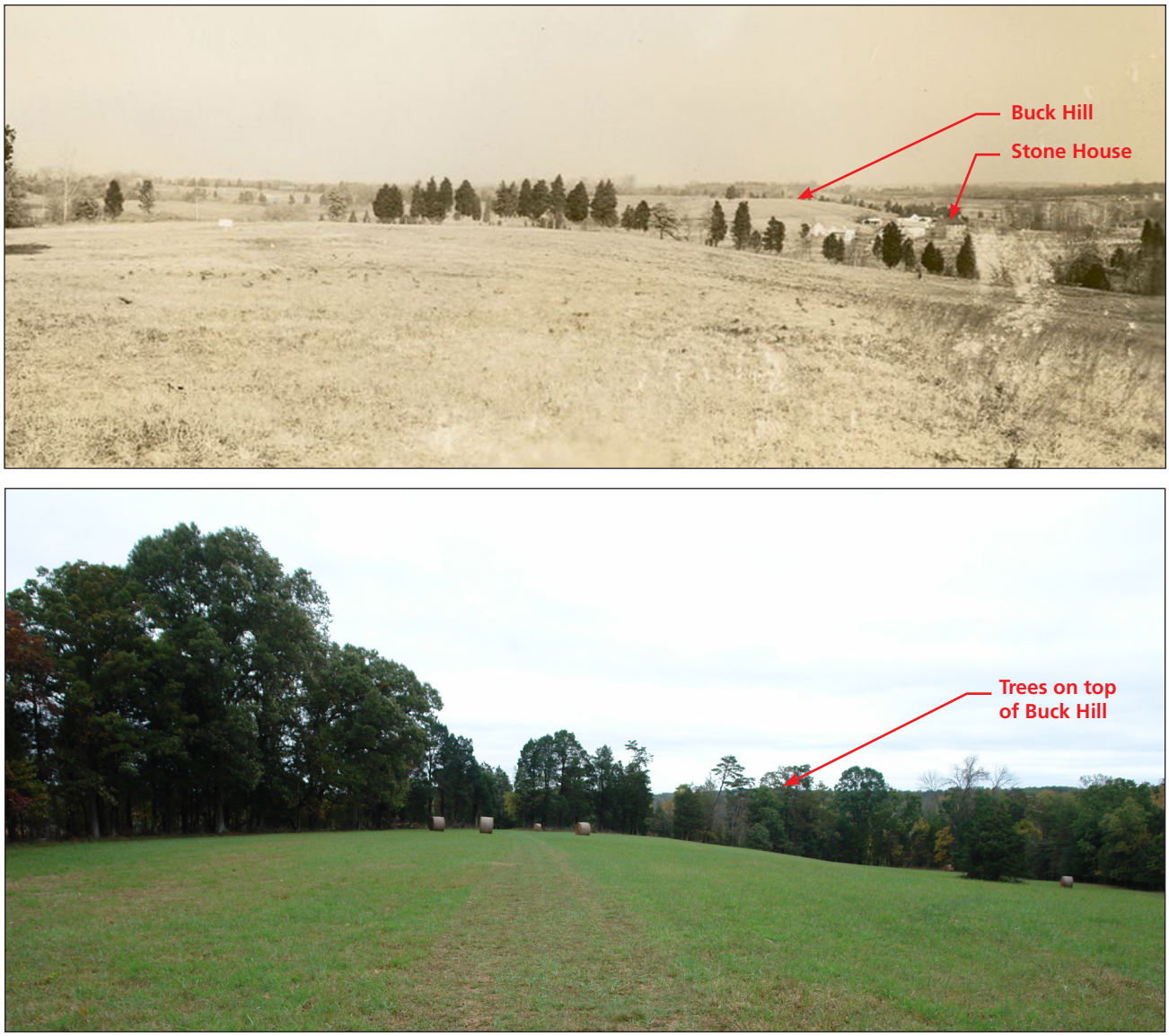


Figure 3-49. View D.

Top. View northeast from Chinn Ridge to Stone House, ca. 1936. The Hooe Dependency was missing by this time (MANA Archives)

Bottom. Similar view, 2017. Vegetation along the slopes of the ridge now obscures the intersection and Stone House (QEA).

View from Chinn Ridge to Stone House Intersection (View D)

This viewshed was part of the primary view corridor for Hazel Plain and later Chinn Farm, providing a visual connection between the plantation house and fields, including surveillance of slaves associated with the Hooe dependency located at the end of the ridge. It was also important during the First and Second Battles of Manassas, when Federal troops would have had a visual connection with other units on adjacent Buck Hill.[36] Similar to other views from the ridge, this viewshed has become obscured by scattered successional vegetation, and no longer retains integrity.

Figure 3-50. View E. View southwest from 5th and 10th New York Monuments to Chinn Ridge, 2017, is now almost completely obscured. Only the treetops on Chinn Ridge are visible (QEA).

Figure 3-51. View E. View from Chinn Ridge looking north toward New York Monuments, 2017. The view is completely obscured by woodland along the slope of the ridge (QEA).

Views between Chinn Ridge and Groveton/ New York Monuments (View E)

Battle accounts and maps following Second Manassas indicate that a mix of open fields and woodland occupied the area between Chinn Ridge and Groveton. During the Second Battle of Manassas, soldiers and officers had a partial view between the ridge where the New York Regiments faced the advance of Longstreet's Line.[37] An extensive forest that is much larger than its historic limit now covers the slope of the rise to the northwest, blocking views to Groveton and New York Monuments. The view does not retain integrity.

Figure 3-52. View F.

Top. 14th Brooklyn Regiment monument looking south, August 1907. 10th New York Monument is visible in the background on the left side of the photo. (Ostrander, *Story of the Dedication of the Monument to the Memory of the Members of the "Fourteenth Brooklyn" Regiment, who fell on the Bull-Run battles' field*).

Bottom. 14th Brooklyn Regiment monument looking south, 2017. Vegetation obscures the view to the 5th and 10th New York Monuments (QEA).

View from 14th Brooklyn to 5th and 10th New York Monuments (View F)

On the final day of Second Manassas, Union regiments positioned along the Warrenton Turnpike and the ridge now occupied by the 5th and 10th New York Monuments were devastated by the advancing Confederate line. Photographs of the dedication of the New York Monuments commemorating this event show that at the time they were constructed in 1906, the 5th and 10th New York Monuments located a quarter mile to the south on a nearby ridge were prominently visible

from the 14th Brooklyn Monument to the north, as these positions would have been visible at the time of battle. Today, this view has been obscured by vegetation and no longer retains integrity.

Figure 3-53. View G. View west from 14th Brooklyn Monument to Groveton, 2017. Several buildings at Groveton are prominently visible from the monument, along with traffic along Lee Highway (QEA).

View from 14th Brooklyn Monument to Groveton (View G)

The slightly raised elevation of the 14th Brooklyn Monument provides an open and unobstructed view over the gently rolling topography. The buildings on the northwest corner of Lee Highway and Pageland Lane are visible in the distance, and the Groveton Confederate Cemetery monument is visible to the north at a similar elevation to the 14th Brooklyn monument. During Second Manassas, Union forces situated on this ridge faced a Confederate charge from the west. Interpretive panels and cannon adjacent to the monument face west, reinforcing the importance of this view. The area surrounding the 14th Brooklyn monument has been retained as grassland, and although the view is abbreviated from its historic extent, it retains integrity.

ARCHEOLOGICAL SITES

Existing Condition

A total of ten archeological sites have been recorded within the study area. Archeological resources relevant to the Chinn Farm and the New York Monuments Areas have been identified through a series of surveys conducted in 1936, 1981, 1986, 1998, and 2002. A description of each of these surveys is presented in Chapter 2.

Hazel Plain/Chinn Farm Domestic Site

Portions of the Hazel Plain/Chinn Farm were first excavated during archeological investigations conducted by WPA workers in 1936. The site was investigated again in 1981 by Thomas McGarry. The 1981 survey identified fourteen features associated with the Hazel Plain/Chinn Farm area, including the Chinn House foundation; the site of the carriage house; remnants of a cluster of outbuildings that may have housed servant's quarters, a summer kitchen, or storage building; remnants of stables, remnants of an icehouse/springhouse; remnants of a root cellar, check dam features, a spring, and an unconfirmed slave cemetery (see Figure 3-54). McGarry's survey also located two additional structure remnants (44PW285 and 44PS286) with undetermined functions. Identified archeological features are concentrated near the remaining Chinn House foundation and on the terraces extending to the east toward Chinn Branch, and are reflected in the historic period plan for 1861-1865 (see HP-2 in Chapter 2). During 2017 field investigations, the archeological features were typically visible as depressions surrounded by woody growth (see Figure 3-55).[38]

Hooe Cemetery

The Hooe Cemetery site is located east of the Chinn House near the intersection of North Chinn Drive and South Chinn Drive. The site is surrounded by a mortared stone wall (refer to Buildings and Structures). Contained within the cemetery wall are the graves of members of the Hooe family, with the first burial dating from 1772 and the last recorded burial documented in 1825.[39] Prior to 1950, three of the graves were marked as belonging to Bernard Hooe, James H. Hooe, and Thomas P. Hooe. The stones were vandalized in 1950. In 2007, the Sons of the American Revolution dedicated a new headstone to Bernard Hooe Sr.; this is the only visible above-grade feature at the cemetery.[40]

Hooe Dependency Site

During archeological investigations for improvements to the intersection of Lee Highway and Sudley Road in 2000, an early nineteenth century domestic site was identified, believed to be field quarters for enslaved African Americans associated with the Hazel Plain Plantation. The site consists of a large assemblage and diverse

range of artifact types. These archeological features are below the ground surface, and were not visible during 2017 field investigations.[41]

Compton-Davis Family Cemetery

A small abandoned cemetery is located on the southern edge of the Manassas National Battlefield Park boundary, southwest of the Hazel Plain/Chinn Farm area. It sits on a 4.724 acre parcel owned by the Davis family. The cemetery was surveyed by Ron Turner and Howard Thompson in 1996, and determined to be 50' x 50'. It contains approximately 17 burials laid out in three rows. The cemetery is remote and hard to notice; graves are unmarked but visible on the surface as depressions, and some graves are also marked by fieldstones.[42]

Indigenous Occupation Sites

In 1986, Thomas McGarry conducted a park-wide survey of previously unknown historic and ancient indigenous sites. The 1986 survey identified four indigenous occupation sites within the study area, containing archeological materials associated with a broad range of material cultures from Paleo-Indian/Early Archaic periods (beginning approximately 11,000 years ago) to EuroAmerican contact (approximately 300 years ago). The archeological features identified within the study area were all located relatively close to Chinn Branch, and included a site on the slope of Chinn Ridge to the west of the stream; two sites on the hill to the east of Chinn Branch; and a site near Chinn Spring.[43]

Late 19th Century Domestic Sites

The 1986 McGarry survey identified the location of two nineteenth century sites located west of Chinn Branch. One site is the location of a house built in the late 19th century and used as late as 1936 as headquarters by the Bull Run Recreational Demonstration Project. The other site, approximately 600 feet to the northeast, is a scatter of domestic and kitchen refuse which may relate to the building site.[44] The building is identified on drawing HP-2 in Chapter 2.

Analysis

Archeological features within the Chinn Ridge cultural landscape, including remnants of the Hazel Plain estate/Chinn Farm outbuildings, the Hooe family cemetery, the Hooe dependency site, the Compton-Davis family cemetery, and indigenous occupation sites contribute to the Chinn Ridge cultural landscape. These features retain integrity of location, feeling, setting, and association.

A full discussion of the archeological resources present within the study area is presented in the detailed archeological surveys that have been conducted over the past 40 years, and is beyond the scope of this CLR. Given the variety of land uses

present at this location over the past 11,000 years, and the site's pivotal role in the Battles of First and Second Manassas, further contributing resources likely exist. It is likely that additional archeological investigations would reveal information relevant to indigenous occupation, plantation development and agriculture, and the Civil War period.

Table 3-10. Archeological Resources Contributing Features

FEATURE	C/NC/ NC-C/M	RATIONALE/NOTES	ASSOCIATED PERIOD		
			1769-1860	1861-1865	1905-1940
Remnants of Chinn Farm/Hazel Plain estate including sites of plantation house, carriage house, cluster of outbuildings, stables, icehouse or springhouse, root cellar, check dams, unconfirmed slave cemetery, and other outbuildings of undetermined use.	C	Associated with 18th and 19th century plantation development. Chinn House was used as field hospital following both battles.	x	x	
Hooe Cemetery	C	Associated with 18th and 19th century plantation development.	x	x	
Hooe Dependency Site	C	Associated with 18th and 19th century plantation development.	x	x	
Compton/Davis Family Cemetery	C	Precise time period is unknown; Compton family lived in the study area at the time of the battles.		x	
Two (2) late 19th century domestic sites located west of Chinn Branch	C	Used as WPA field headquarters during 1930s development of Bull Run Recreational Development Area.			x
Four (4) indigenous occupation sites located on the east and west sides of Chinn Branch	C	Precontact evidence of occupation			

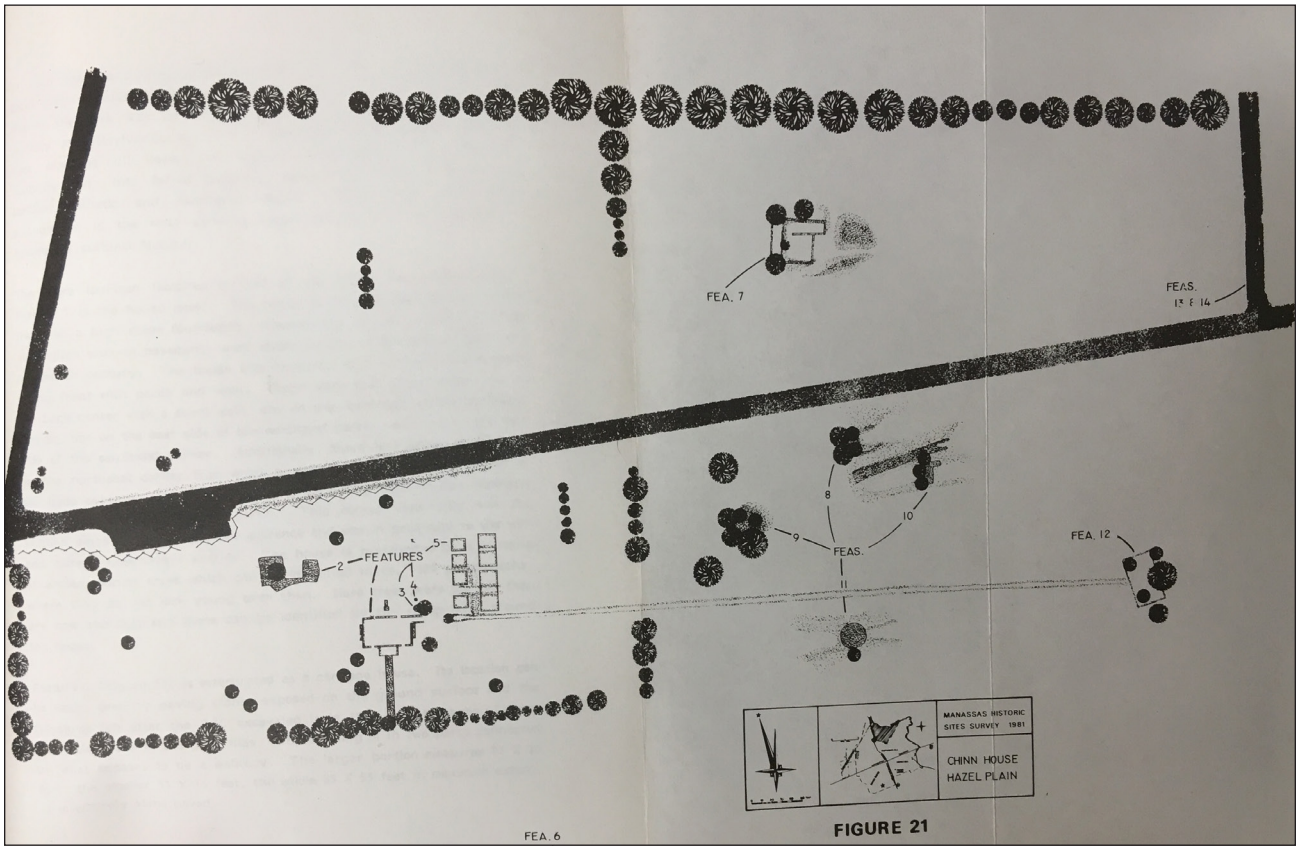


Figure 3-54. Archeological features at Hazel Plain/Chinn farm identified by McGarry, 1982.

Figure 3-55. Remnant of icehouse or springhouse, east of Chinn House foundation, 2017. The locations of building remnants and check dams are typically visible as depressions with some remaining stones, surrounded by woody vegetation (QEA).

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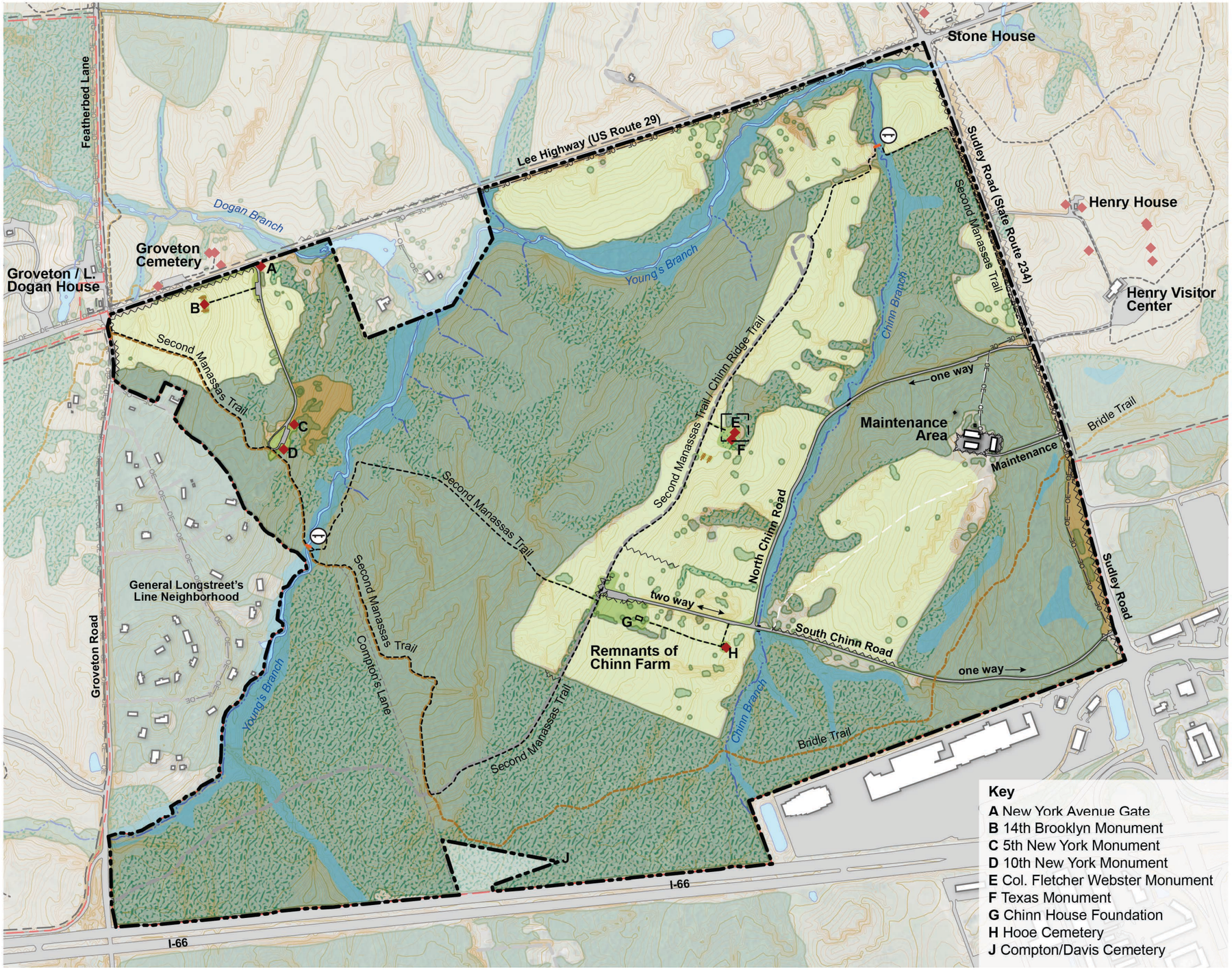
Study Area
Existing Condition



Key

A New York Avenue Gate
B 14th Brooklyn Monument
C 5th New York Monument
D 10th New York Monument
E Col. Fletcher Webster Monument
F Texas Monument
G Chinn House Foundation
H Hooe Cemetery
J Compton/Davis Cemetery

Legend

- Chinn Ridge CLR Study Area
- MNBP Legislated Boundary
- Monument
- Cannon
- Building or structure
- Road or parking area
- Gravel road
- Hiking trail
- Bridle trail
- Road trace
- Unofficial unpaved path
- Trail bridge
- Creek or pond
- Stream
- Oak-hickory forests
- Successional forests, fenceline, or individual tree
- Floodplain forests
- Native grassland/meadow managed for open views and habitat
- Native grassland/meadow managed through hay lease
- Mown lawn
- Electric line
- Fence (all types)
- 10-foot contour
- 2-foot contour

Notes and Sources

1. MNBP GIS Data Archives: 2017 park boundaries, streams, ponds, trails (updated), roads (updated), buildings, structures, signs and waysides (updated), cannons, vegetation
2. Field investigations, Quinn Evans Architects, October 2017: structures, fences

0 400 800 1,600 Feet

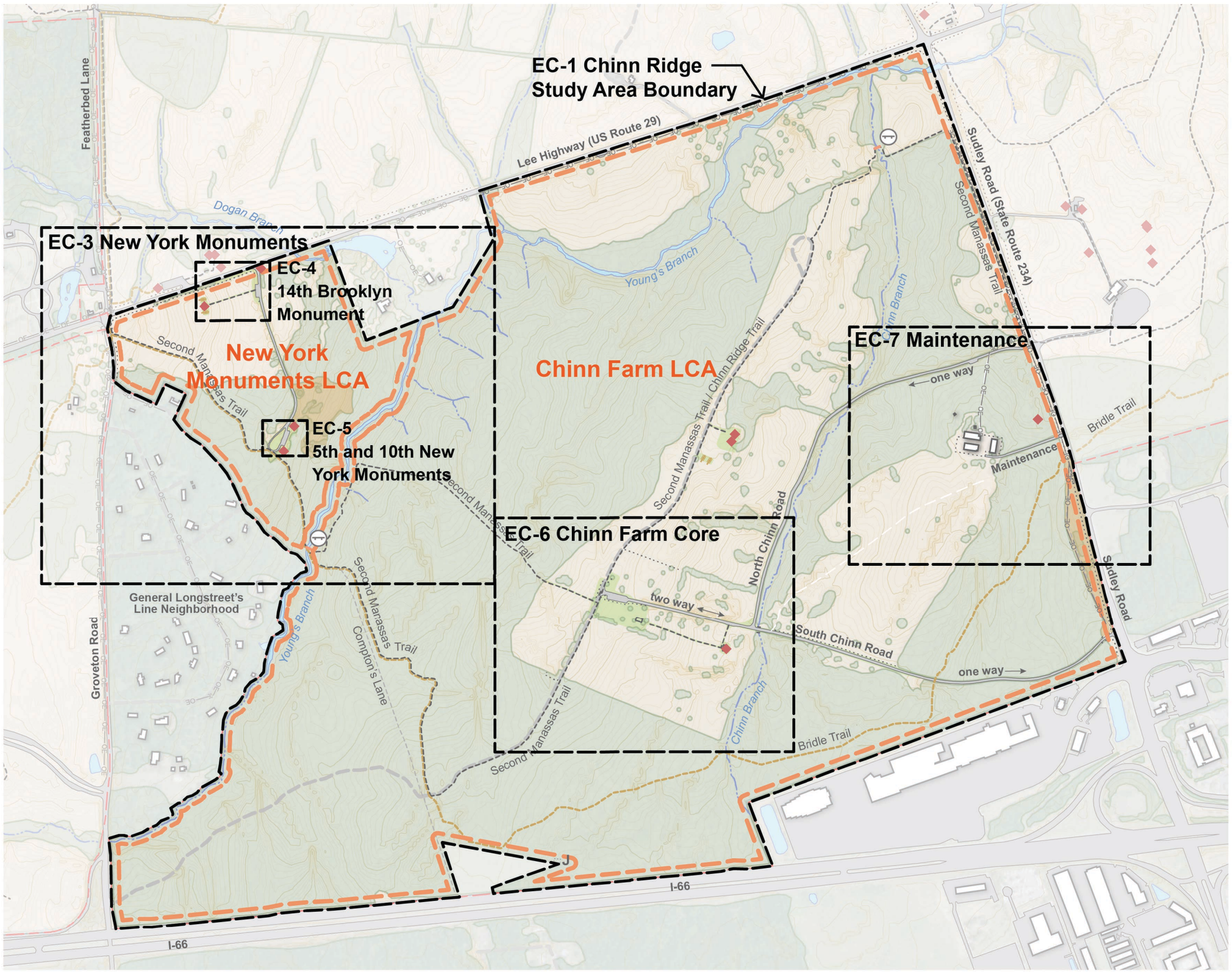
1 in = 800 ft

N

NPS No. MANA 379 137862 | **EC-1**

QUINN EVANS ARCHITECTS

National Park Service
National Capital Region



Drawing Key Plan

Legend

- Chinn Ridge CLR Study Area
- MNBP Legislated Boundary
- Landscape Character Area
- Monument
- Cannon
- Building or structure
- Road or parking area
- Gravel road
- Hiking trail
- Bridle trail
- Road trace
- Trail bridge
- Unofficial unpaved path
- River or pond
- Stream
- Oak-hickory forests, successional forests, floodplain forests, fencerows, and trees
- Mown lawn
- Native grassland/meadow
- OE—OE Overhead electric line
- Fence (all types)
- 10-foot contour
- 2-foot contour

Notes and Sources

1. MNBP GIS Data Archives: 2017 park boundaries, streams, ponds, trails (updated), roads (updated), buildings, structures, signs and waysides (updated), cannons, vegetation
2. Field investigations, Quinn Evans Architects, October 2017: structures, fences

0 400 800 1,600 Feet

1 in = 800 ft

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NPS No. MANA 379 137862 | **EC-2**

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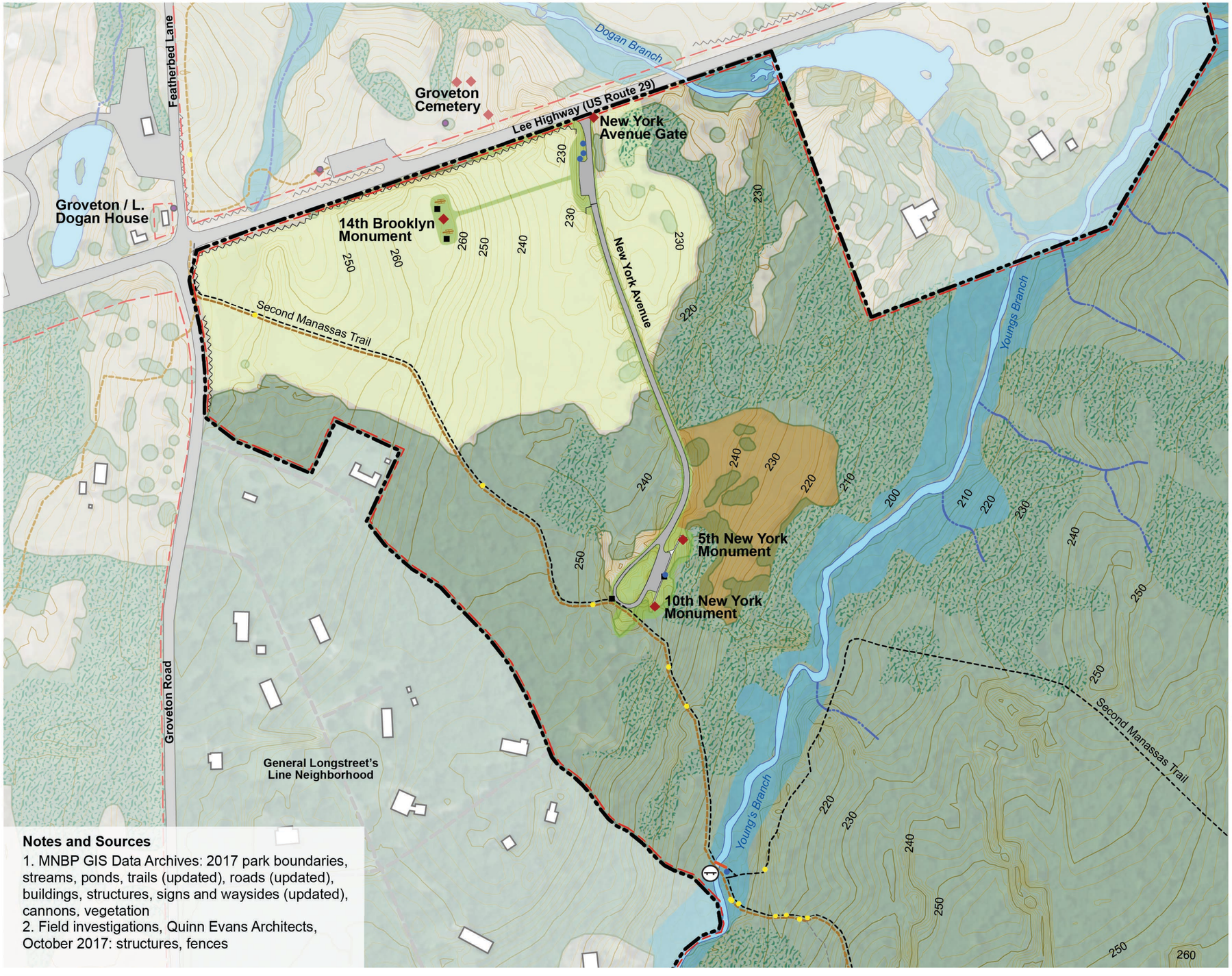
National Park Service
National Capital Region

New York Monuments Area
Existing Condition



Legend

- Chinn Ridge CLR Study Area
- MNBP Legislated Boundary
- Monument
- Cannon
- Building
- Road or parking area
- Hiking trail
- Bridle trail
- Trail bridge
- Creek or pond
- Stream
- Oak-hickory forests
- Successional forests, fenceline, or individual tree
- Floodplain forests
- Native grassland/meadow managed for open views and habitat
- Native grassland/meadow managed through hay lease
- Mown lawn
- Worm fence
- Water bar
- Wayside or troop position marker
- Other sign
- 10-foot contour
- 2-foot contour

Notes and Sources

1. MNBP GIS Data Archives: 2017 park boundaries, streams, ponds, trails (updated), roads (updated), buildings, structures, signs and waysides (updated), cannons, vegetation
2. Field investigations, Quinn Evans Architects, October 2017: structures, fences

0 150 300 600 Feet

1 in = 300 ft

N

NPS No. MANA 379 137862 | **EC-3**

QUINN EVANS ARCHITECTS

National Park Service
National Capital Region

14th Brooklyn Monument Existing Condition

Legend

- Chinn Ridge CLR Study Area
- MNBP 2017 Boundary
- Monument
- Cannon
- Road or parking area
- Individual tree
- Mown lawn
- Native grassland/meadow managed through hay lease
- Worm fence
- Decorative iron fence
- Wayside
- Troop position marker
- Other sign
- 10-foot contour
- 2-foot contour

Key

A	Base of west New York Avenue gate
B	Troop position marker: Second Manassas "Federal Artillery Position"
C	Wayside: Second Battle of Manassas "Twilight Clash"
D	Wood access gate

Notes and Sources

1. MNBP GIS Data Archives: 2017 park boundaries, streams, ponds, trails (updated), roads (updated), buildings, structures, signs and waysides (updated), cannons, vegetation
2. Field investigations, Quinn Evans Architects, October 2017: structures, fences

0 25 50 100 Feet

1 in =50 ft

N

NPS No. MANA 379 137862 | **EC-4**

QUINN EVANS ARCHITECTS

National Park Service
National Capital Region

5th and 10th New York Monuments Existing Condition

Legend

- Monument
- Road or parking area
- Sidewalk (barrier-free route)
- Bare earth trail
- Gravel paving
- Deciduous tree
- Conifer tree
- Mown lawn
- Native grassland/meadow managed for open views and habitat
- Decorative iron fence
- Wayside
- Other sign
- 10-foot contour
- 2-foot contour

Key

A Wayside: Second Battle of Manassas, “Confederate Counterattack”

B Wayside: Second Battle of Manassas, “The Very Vortex of Hell”

Notes and Sources

1. MNBP GIS Data Archives: 2017 park boundaries, streams, ponds, trails (updated), roads (updated), buildings, structures, signs and waysides (updated), cannons, vegetation
2. Field investigations, Quinn Evans Architects, October 2017: structures, fences

0 15 30 60 Feet

1 in = 30 ft

N

NPS No. MANA 379 137862 | **EC-5**

QUINN EVANS ARCHITECTS

National Park Service
National Capital Region

Chinn Farm Core
Existing Condition

Key

- **A** Troop Position Marker: Second Manassas, “Kemper’s Brigade”
- **B** Troop Position Marker: Second Manassas, “Second Brigade”
- **C** Troop Position Marker: Second Manassas, “73rd Ohio Infantry”
- **D** Wayside: Second Battle of Manassas, “Fight at the Fenceline”
- **E** Wayside: “Chinn Ridge”
- **F** Wayside: “Hazel Plain”
- **G** Chinn House Cistern and Well
- **H** Check dam
- **J** Troop Position Marker: “Hooe Family Cemetery”
- **K** Post and board fence enclosure
- **L** Bernard Hooe headstone
- **M** South Chinn Road stone culvert
- **N** Chinn Spring housing

Legend

- Structure
- Building depression/ruin
- Road or parking area
- Gravel road
- Hiking trail
- Stream
- Oak-hickory forests
- Successional forests, fenceline, or individual tree
- Floodplain forests
- Native grassland/meadow managed through hay lease
- Mown lawn
- Legacy trees
- Worm fence
- Post and board fence
- Trail culvert
- Wayside
- Troop position marker
- Other sign
- 10-foot contour
- 2-foot contour

Notes and Sources

1. MNBP GIS Data Archives: 2017 park boundaries, streams, ponds, trails (updated), roads (updated), buildings, structures, signs and waysides (updated), cannons, vegetation
2. Field investigations, Quinn Evans Architects, October 2017: structures, fences

0 100 200 400 Feet

1 in = 200 ft

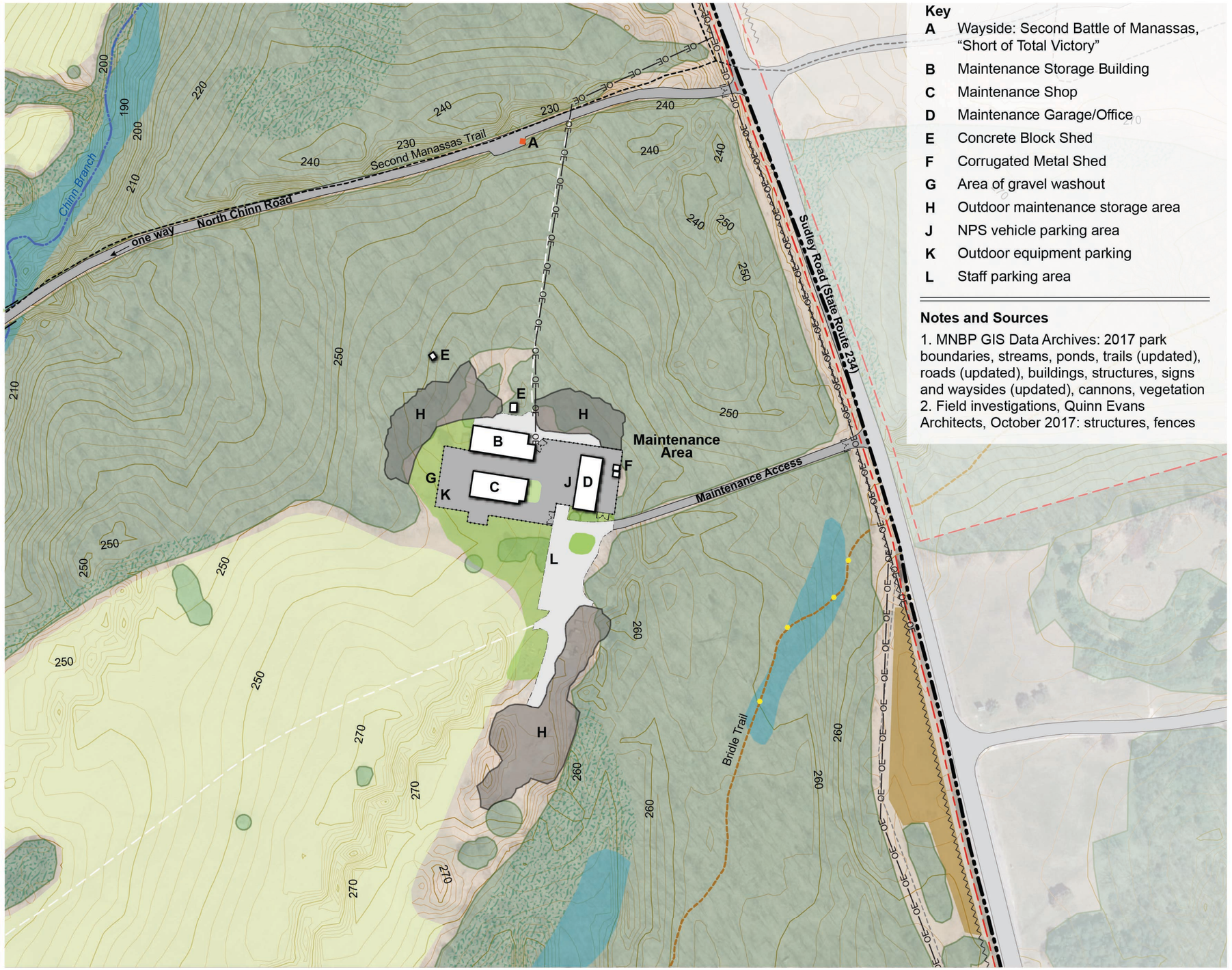
N

NPS No. MANA 379 137862 | **EC-6**

QUINN EVANS ARCHITECTS

National Park Service
National Capital Region

Maintenance Area
Existing Condition



Key

- **A** Wayside: Second Battle of Manassas, "Short of Total Victory"
- **B** Maintenance Storage Building
- **C** Maintenance Shop
- **D** Maintenance Garage/Office
- **E** Concrete Block Shed
- **F** Corrugated Metal Shed
- **G** Area of gravel washout
- **H** Outdoor maintenance storage area
- **J** NPS vehicle parking area
- **K** Outdoor equipment parking
- **L** Staff parking area

Notes and Sources

1. MNBP GIS Data Archives: 2017 park boundaries, streams, ponds, trails (updated), roads (updated), buildings, structures, signs and waysides (updated), cannons, vegetation
2. Field investigations, Quinn Evans Architects, October 2017: structures, fences

Legend

- Chinn Ridge CLR Study Area
- MNBP 2017 Boundary
- Building
- Asphalt paved road or parking area
- Gravel paved area
- Hiking trail
- Bridle trail
- Road trace
- Unofficial unpaved path
- Stream
- Oak-hickory forests or individual tree
- Successional forests, fenceline, or individual tree
- Floodplain forests
- Mown lawn
- Native grassland/meadow managed for open views and habitat
- Native grassland/meadow managed through hay lease
- Maintenance Storage Area
- OE—OE Overhead electric line
- Worm fence
- Chain-link fence
- Trail culvert
- Wayside
- 10-foot contour
- 2-foot contour

0 100 200 400 Feet

1 in = 200 ft

N

NPS No. MANA 379 137862 | **EC-7**

QUINN EVANS ARCHITECTS

National Park Service
National Capital Region

Endnotes

1 Page, Gilbert, and Dolan, *A Guide to Cultural Landscape Reports*, 139.

2 "Rocks of Manassas," Manassas National Battlefield Park, accessed November 2017, https://www.nps.gov/mana/learn/nature/rocksofmanassas.htm.

3 Oeschger, *Chinn Ridge Cultural Landscape Inventory*; cites Radford University, "Physiographic Provinces v. Geologic Provinces," http://www.radford.edu/jtso/GeologyofVirginia/Physiography/PhysioIntro-4.html.

4 National Park Service Geologic Resources Division, *Manassas National Battlefield Park Geologic Resource Evaluation Report* (US Department of the Interior, National Park Service, Natural Resource Program Center, 2008), 6

5 Oeschger, *Chinn Ridge Cultural Landscape Inventory*, 33; cites Jane Thomas, Tim Carruthers, Bill Dennison, Mark Lehman, Megan Nortrup, Patrick Campbell, and Bryan Gorsira, *Manassas National Battlefield Park Natural Resource Condition Assessment Summary* (US Department of the Interior, National Park Service, 2011), 3.

6 Soil Conservation Service, "Soil Survey of Prince William County," (USDA, Soil Conservation Service, 1989), 17-18.

7 Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 4.9

8 Reeves et. al., *Phase I and II Cultural Resource Investigation and Site Examination of Proposed Intersection Improvements at Routes 29 and 234*.

9 Parsons, Mia, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park (*US Department of the Interior, National Park Service, 1996), 4.9.

10 Oeschger, *Chinn Ridge Cultural Landscape Inventory*.

11 Land Record, Parcel 01-166, MANA Archives.

12 Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 4.27, 4.83.

13 Oeschger, *Chinn Ridge Cultural Landscape Inventory*; cites Morrison 1987:308; and Prince William County Fire Insurance Policies, 1796-1846, abstracted by Donald L. Wilson.

14 Plat map showing division of property to Wormley Carter's heirs near the intersection of Warrenton Turnpike and Sudley Road, Prince William County, 1815..

15 Joseph, *Northwest Quadrant Cultural Landscape Inventory*, 3-4; cites 1815 plat map of Wormley Carter estate, Prince William Land Causes Book 3, 65-70.

16 Joseph, *Northwest Quadrant Cultural Landscape Inventory*, 3-34; cites *Prince William: The Story of Its People and Places* (Writers Program of the Work Projects Administration in the State of Virginia, The Bethlehem Good Housekeeping Club, 1941), 68.

17 Virginia Department of Transportation, "Park and Ride in Virginia," accessed April 2018, http://www.virginiadot.org/travel/parkride/home.asp

18 Ostrander, *Story of the Dedication of the Monument to the Memory of the Members of the "Fourteenth Brooklyn" Regiment, who fell on the Bull-Run battles' field*; and Zenzen, *Battling for Manassas*, Chapter 1.

19 Oeschger, Chinn Ridge C*ultural Landscape Inventory,* 51; cites Commissioner of Patents for the Year 1902, accessed 6/20/2016, https://books.google.com/books?id=wsA_AQAAMAAJ&pg=PA800&lpg=PA800&dq=etter+pump+507&source=bl&ots=HeHSc5wOQt&sig=1_vmUHc-qdjyss98y0iaA2VQ11M&hl=en&sa=X&ved=0ahUKEwj-tday6bbNAhWKJh4KHcbYBsIQ6AEIRTAI#v=onepage&q=etter%20pump%20507&f=false

20 Hank Elliott, Manassas National Battlefield Park Chief of Interpretation, communication with author, September 2018.

21 National Park Service, *Chinn Ridge Cultural Landscape Inventory*.

22 Vegetation survey, GIS Data, Manassas National Battlefield Park.

23 National Capital Region Network, "Invasive Exotic Plants Resource Brief," accessed January 2017, https://irma.nps.gov/DataStore/Reference/Profile/2188689.

24 Vegetation survey, Manassas National Battlefield Park

25 Virginia Department of Conservation, "Basic Oak-Hickory Forests," the Natural Communities of Virginia Classification of Ecological Groups and Community Types, accessed May 2018, http://www.dcr.virginia.gov/natural-heritage/natural-communities/nctc3.

26 US Geological Survey, "Virginia Pine Ruderal Forest," US National Vegetation Classification, accessed 20 November 2017, https://www1.usgs.gov/csas/nvcs/nvcsGetUnitDetails?elementGlobalId=688932; and Vegetation survey, Manassas National Battlefield Park.

27 Vegetation survey, GIS Data, Manassas National Battlefield Park.

28 Hay lease, GIS data, Manassas National Battlefield Park.

29 Prince William Wildflower Society, "VNPS Registry Sites in Prince William County," accessed September 2018, https://vnps.org/princewilliamwildflowersociety/vnps-registry-sites-in-prince-william-county/.

30 National Park Service, *Mowing Plan for Manassas National Battlefield Park* (U.S. Department of the Interior, National Park Service, 2016), 12-13.

31 Patrick W. Andrus, *National Register Bulletin 40: Guidelines for Identifying, Evaluating, and Registering America's Historic Battlefields* (U.S. Department of the Interior, National Park Service, 1992, revised 1999), 12.

32 Andrus, *National Register Bulletin 40: Guidelines for Identifying, Evaluating, and Registering America's Historic Battlefields*, 12.

33 Walker Collaborative, *Manassas Battlefields Viewsheds Plan*, 38.

34 Walker Collaborative, *Manassas Battlefields Viewsheds Plan Background Study*, 95.

35 Bearss, *Historical Report: Troop Movement Maps: Battle of First Manassas and Engagement at Blackburn's Ford*, 122.

36 Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 3-14.

37 Hennessy, *Historical Report on the Troop Movements for the Second Battle of Manassas,* 365; cites McLean's report, ibid., p. 286; McLean to John C. Ropes, October 6, 1897, Ropes Papers.

38 McGarry, *Manassas Historic Sites Survey*, 50-60.

39 Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park,* 4.87

40 Oeschger, *Chinn Ridge Cultural Landscape Inventory*.

41 Reeves et al., *Phase I and II Cultural Resource Investigation and Site Examination of Proposed Intersection Improvements at Routes 29 and 234*, ii, 102-123.

42 Ron Turner and Howard Thompson, "Prince William County Cemetery Register Form, Compton or Davis Cemetery," 1996, accessed December 2017, http://www.pwcvirginia.com/Cemeteries1.htm; and Historic Prince William, "Compton/Davis Family Cemetery record," included in Saint Martin's Episcopal Church, "The Herald," April 2012, on file at Manassas National Battlefield Park.

43 McGarry and Bohannon, *An Archeological Survey of Selected Portions of Manassas National Battlefield Park*, 30-35.

44 McGarry and Bohannon, *An Archeological Survey of Selected Portions of Manassas National Battlefield Park*, 30-35.

Treatment Approach

Chapter 4

Chapter title page: Chinn Stables, looking southeast, ca. 1936 (MANA Archives)

Chapter 4: Treatment Approach

This chapter explains the foundation of the selection of rehabilitation as the most appropriate treatment approach for the study area landscape. Landscape treatment recommendations are presented in Chapter 5, and best management practices for preservation and maintenance of the landscape are presented in Chapter 6.

TREATMENT FRAMEWORK

The basis for all management decisions regarding resources within the park is provided by the park's enabling legislation and General Management Plan (GMP). Manassas National Battlefield Park was designated on 10 May 1940 to recognize its "historical importance as the battlefield site of the First and Second battles of Manassas." The property within the park boundaries has been acquired to "preserve the most historically important lands relating to the two battles of Manassas." Submitted as a final document in conjunction with an Environmental Impact Statement (EIS) in 2008, the current GMP/EIS was authorized in 2011. The NPS selected alternative within the GMP stresses a comprehensive understanding of each of the two battles associated with the park and envisions a future condition at the park that focuses on interpreting the two battles of Manassas as distinct military events.[1]

The overall goal of the GMP is to present a battlefield landscape to visitors that resembles its wartime appearance by rehabilitating historic vegetation patterns and preserving and re-establishing key interpretive views. The GMP recommendations related to the Second Battle of Manassas include several that affect the Chinn Ridge CLR project area. These include broad-scale influences as well as some specific changes.[2]

GENERAL MANAGEMENT PLAN GUIDANCE

Manassas National Battlefield Park Bypass

The proposed plan for the construction of the Manassas National Battlefield Park Bypass is intended to decrease heavy commuter and commercial truck traffic from the portions of U.S. Route 29 and VA Route 234 (Lee Highway and Sudley Road) that run through the park. Controlled access facilities would further limit through traffic at each of the park's four main entries. The GMP preferred alternative assumes the presence of a finished Battlefield Bypass.

First Manassas Automobile/Bicycle Tour

Under the preferred alternative, the National Park Service would develop a new First Manassas automobile and bicycle tour route. The tour route would use existing roads and trails, and would follow wartime routes where possible. Each stop on the tour would include a small parking area, interpretive display, and short loop trail to encourage visitors to experience the resources up close. The self-guided tour route would follow the flow of the battle by chronologically interpreting connected sites such as the Stone Bridge, Sudley Church, Matthews Hill, Henry Hill, Chinn Ridge, and Portici.[3]

Second Manassas Automobile/Bicycle Tour

The GMP indicates that a major emphasis of the interpretation program for Second Manassas will be the Automobile/Bicycle tour route. The Second Manassas automobile tour has existed for many years. Currently, the New York Monuments area and Chinn Farm are stops 9 and 10, respectively, on the tour. The tour stops each include a small parking area, interpretive display, and a short loop trail to encourage visitors to experience the resources on foot.[4]

Since bicycling is not encouraged under existing conditions in the park, the existing tour route is strictly an automobile tour. The intent is to utilize the automobile route for bicycles after a bypass has been developed to divert heavy traffic on US. Route 29 and VA Route 234 (Lee Highway and Sudley Road). There is no intention to develop a separate bicycle tour using trails, as doing so would lead to numerous conflicts with hikers and equestrians.[5]

Second Manassas Self-Guided Hiking Trail

The GMP recommends that the Second Manassas self-guided hiking trail be reconfigured to provide a 5 mile loop beginning at the Brawner Farm and continuing to Unfinished Railroad, Deep Cut, Groveton, New York Monuments and Chinn Ridge. The proposal specifies that waysides and other media provide interpretive information along the route, current trail surfaces be upgraded, and new segments of trail added as necessary. Bridle trails continue to be used and will be kept separate from hiking trails.[6]

Vegetation Management

Under the preferred alternative, the GMP directs that the landscape be rehabilitated to the 1861-1862 battleground conditions in several key areas through a combination of tree removal, clearing, and reforestation. These modifications are to help visitors better understand the battles and to provide guidance for the management of natural resources. Two areas within the study area are identified for historic scene rehabilitation:

- Approximately 45 acres of woods along the west side of Chinn Ridge are to be cleared and replaced with open fields and grasslands to reestablish the view between the ridge and the site of the New York Monuments.
- Approximately 25 acres of woods along the east side of the Chinn Ridge are to be cleared and replaced with open fields and grassland to reestablish the view between Chinn Ridge and Henry Hill. The riparian buffer along Chinn Branch is to be retained.[7]

EXISTING CULTURAL LANDSCAPE GUIDANCE

Fence Lines, Fields, and Forests Cultural Landscape Report

The 2013 *Fence Lines, Fields, and Forests: Manassas National Battlefield Cultural Landscape Report* includes general treatment recommendations for vegetation and fencing that pertains to the project area, as well as specific treatment tasks relevant to the Chinn Farm and New York Monuments Landscape Character Areas. The recommendations that relate to the current CLR include modifications to vegetation and fences.

- Consistent with the GMP, the *Fence Lines, Fields, and Forests CLR* Task 17.0 recommends clearing roughly 45 acres between Chinn Ridge and the New York Monuments and restoring open fields.
- *Fence Lines, Fields and Forests CLR* Task 17.1 recommends removing forest cover at the fencerow near the midpoint of Chinn Ridge adjacent to the Webster Monument to enhance the view from Chinn Ridge to the Stone House. The vegetation likely originated at the fencerow, and has expanded to interrupt the axial view between the parking area at Chinn Ridge along the trail, and toward the Stone House and Matthews Hill. The recommendation proposes substantially reducing this fencerow vegetation, leaving only a few mature and healthy trees to mark the fenceline while restoring the rest of the area to open fields and grassland. The proposed clearing is roughly 3 acres.[8] Additional vegetation that may contribute to the obstruction of the views along Chinn Ridge is a small wooded area within the Webster Monument inholding. The *Fence Lines, Fields and Forests CLR* recommends coordinating with the owner of the inholding to determine if vegetation may be cleared from this property.[9]
- Task 17.2 in the *Fencelines, Fields and Forests CLR* calls for a restoration of 28 acres of ope fields to restore the view between Chinn Ridge and Henry Hill and Chinn Ridge and the Stone House, retaining a woodland buffer of 50 feet around Chinn Branch.[10]

- Task 17.3 in the *Fence Lines, Fields and Forests CLR* identifies an additional wooded area at the confluence of Chinn Branch and Youngs Branch that obscures this view between Chinn Ridge and the Stone House. The document recommends restoring 2.5 acres of woodland to grassland, while retaining a woodland buffer around both streams.[11]
- The *Fence Lines, Fields and Forests CLR* recommends placement of worm fencing only along historic fencelines. Tasks 18.0, 18.1, and 18.2 in the report identify several locations where worm fences do not follow historic fencelines, including along South Chinn Drive, at the Chinn Ridge parking lot, and along the southern portion of Sudley Road where it has been altered from its historic alignment. Tasks 18.2, 19.0, and 19.1 recommend adding worm fences along the alignment of historic fencelines, including two locations traversing Chinn Ridge, as well as along the historic alignment of the southern portion of Sudley Road.[12]

Natural Heritage Inventory of Manassas National Battlefield Park

The 1998 *Natural Heritage Inventory of Manassas National Battlefield Park* provides an assessment of "scene restoration areas" where forest is proposed to be removed to rehabilitate open viewsheds. The document addresses the view between Chinn Ridge and the New York Monuments Area and the view between Chinn Ridge and Henry Hill.[13]

- Between Chinn Ridge and the New York Monuments, the study recommends that conversation of forest communities to native grassland/meadow adhere to implementation practices that avoid erosion problems on slopes and retain a riparian woodland buffer along Youngs Branch to mitigate potential problems with bank erosion and channel siltation.[14]
- Between Chinn Branch and Henry Hill, the study recommends excluding mixed hardwood and xeric *Quercus alba* stands from the forest to be cleared, as the forest quality will improve with time. These locations are correlated with the hardpan basic oak-hickory forest identified in the 2011 vegetation survey of Manassas National Battlefield Park. The study recommends that conversion of forest communities to native grassland/meadow in the remainder of the area adhere implementation practices that avoid erosion problems on slopes and retain a riparian buffer along Chinn Branch to mitigate potential problems with bank erosion and channel siltation.[15]

Manassas Battlefields Viewsheds Plan

The 2010 *Manassas Battlefields Viewsheds Plan* evaluated viewsheds from the vantage point of the Chinn House foundation. Views were evaluated toward Henry Hill to the northeast, toward Dogan Ridge to the north, toward the New York Monuments to the northwest, and toward Bald Hill to the southeast. The viewsheds plan notes that although key viewsheds are blocked by woody vegetation and minor man-made visual intrusions are present, in general the viewsheds retain a high degree of historic character. Based on the analysis in the viewshed study, more than half of the lands visible from Chinn Ridge are within the national battlefield park, and are therefore considered protected from additional impacts.[16]

The four primary threats to the battlefield's viewsheds identified in the study area include development, overhead utilities and towers, road expansions, and a landfill. Within the vicinity of the study area, the most intrusive threats are road expansions, including alterations proposed to Pageland Lane, Lee Highway, and Sudley Road.[17]

The viewshed study noted that the driving tour parking lots are a slight intrusion on historic viewsheds, and recommended modest screening such as tall grass along the perimeter of parking lots, including those at Chinn Ridge and the New York Monuments.[18]

GENERAL TREATMENT ISSUES

General treatment issues affecting the study area were documented through the Chinn Ridge CLR scope of work and at the project kickoff meeting held on 10 October 2017 at Manassas National Battlefield Park. These issues were refined at subsequent meetings on 20 March 2018 and at the workshop held on 1 May 2018 at the park.

Land Use

- A portion of the study area within the legislated boundary is currently not owned by the park. There are also nearby properties outside the boundary that are relevant to protection of the project area. The CLR addresses protection of study area viewsheds by leveraging the visual and audio buffer associated with protected properties owned by the American Battlefield Trust, but avoids addressing treatment of other non-NPS properties outside the study area. Within this document, guidance for the Webster inholding property is predicated on acquisition of the property by NPS.
- Lands outside the legislated boundary owned by the American Battlefields Trust total about 350 acres. A legislated boundary adjustment will be required to transfer all of these lands to NPS. Areas of interest to the current project include:
    - Four properties within the Longstreet's Line neighborhood adjacent to the New York Monuments. These properties are illustrated in Figure 3-5 in Chapter 3. Although this neighborhood is outside the NPS boundary, it is associated with the Battles and may be important to consider as a buffer to future development.
    - American Battlefields Trust property on the north side of Stonewall Memory Gardens Cemetery.
- Col. Fletcher Webster Monument
    - This marker was dedicated by survivors in 1914. They brought the boulder from the Webster estate in Massachusetts, and obtained title to a 1 acre tract along the crest of Chinn Ridge. After the veterans passed away, it became unclear who owned the land. The National Parks Trust is working to eventually transfer the ownership to NPS.

- While the ownership of the property is under review, the National Park Service continues to maintain the upkeep of the property, including mowing the grass and maintaining both monuments.
- The lack of ownership clarity led to addition of the Texas Monument adjacent to the Webster Monument in 2012. Based on current guidance from NPS, the Texas Monument will remain in place if the property is acquired by NPS. Construction of the Texas monument occurred while in private ownership and prior to possible acquisition by the federal government. It is the policy of the NPS that commemorative works, will not be altered, relocated, obscured, or removed, even if they are deemed inaccurate or incompatible with prevailing present-day values, without legislation directing the change or a waiver from the Director of the NPS.[19]

- McGlothlin Property
  - NPS has a 1963 easement on McGlothlin property on the north side of the study area to the east of the New York Monuments area. If changes are made to the property, they are to be reviewed by the NPS. Changes that have occurred under the easement include a 1993 berm and renovations to a barn structure. The CLR includes a description of what the easement includes, and how the easement can be used to protect NPS interests.
- Interstate Highway 66 expansion is occurring along the southern boundary of the study area.
  - The Virginia Department of Transportation (VDOT) will be undertaking expansion of I-66 outside the boundary. The goal is to put in hotlanes (HOV-3). Adjacent to the park, this will be in the existing right-of-way.
  - Two park and ride facilities will be added. One will be located west of the study area at intersection of University Blvd./US 29/I-66. The initial phase is to include 2100 parking spaces and the second phase 2500 spaces. The other facility will be 2000 parking spaces off of Balls Ford Road, south of I-66 immediately south of the study area. This will include a direct tie into HOV lanes via a new overpass over the interstate.
  - An initial Environmental Impact Statement (EIS) has been completed by Express Mobility Partners.
  - The greatest potential impact to park is at the Portici site, where at-speed flyover ramps are proposed west of Portici. Currently, the road is screened by topography and vegetation. The bottom of ramps will be minimum 22 feet over the ground surface. The ramps were added to the plan after the EIS was completed. Lights from the highway may be visible within the study area.
  - The scope of this CLR does not include responding to the highway project as it evolves. To help protect the study area from views of the elevated and widened highway, CLR treatment recommendations will maintain woody vegetation south of Chinn Farm as a visual buffer, although these areas were historically open.
- Parkridge Shopping Center, located immediately south of the study area, may be replaced with housing. This area is outside of the legislated boundary. The CLR recommends that NPS work with municipalities and

owners to encourage sensitive future development and retain or increase buffers.

- Cell towers are being added outside of the boundary. Current understanding is that they will not be visible from the study area.
- NPS is likely to soon acquire the structure to the northwest of the Lucinda Dogan House and surrounding land within the legislated boundary. This area is currently visible from the New York Monuments landscape character area, and a portion of the structure may have been present during the battle.

Spatial Organization

- Spatial organization of the fields and forests present during the period(s) of significance has been impacted by encroaching woody vegetation as well as the loss of organizational features such as fences.
- Although the Chinn Farm core retains recognizable patterns similar to those present during the period(s) of significance, the loss of major landscape features including the three dimensional form of the house, outbuildings, and fences confuses understanding of the space.
- The maintenance area is not entirely enclosed within the security fence, and the public periodically wanders into this area along a utility corridor. Despite these intrusions, they have not experienced any problems with unsecured materials. The CLR includes consideration of possible expansion of the fence or other treatment to secure the maintenance area.
- The maintenance area is currently located within the battlefield core. Although the park has expressed a desire to move the maintenance area, an alternate location has not been identified for the maintenance area and is outside the scope of this CLR. Recommendations in this report note that if an alternate location for the maintenance facility becomes available, it should be removed from its current location. The CLR provides recommendations for organizing and containing the maintenance facility in its current location.

Natural Systems and Topography

- There is potential for federally threatened Northern Long-Eared Bat (*Myotis septentrionalis*) and federally endangered Indiana Bat (*Myotis sodalis*) habitat in hardwood areas. Presence of these species has not yet been confirmed.
- Erosion of Chinn Branch near I-66 is accelerating due to various factors, including surrounding urban development growth, more frequent flood events, and increased stormwater run-off. Deer browsing contributes to this problem, and is currently being addressed through a wildlife exclosure to prevent deer from browsing in order to reestablish vegetation. The CLR provides consideration of whether additional treatments are needed.

Circulation

- The CLR provides a comprehensive approach to providing universal access within the study area.
- Many visitors do the driving tour through the site, which goes chronologically through the second battle. The CLR considers if it is appropriate to reestablish a vehicular route along Chinn Ridge to expand

the driving tour and increase visitor access to Chinn Farm cultural landscape resources.

- Access to 234 (Sudley Road) from the maintenance area is difficult. Turning left from the maintenance road is problematic due to traffic.
- There is interest in paving the parking area in asphalt rather than gravel. Within the center of the maintenance area, there are drainage issues that have caused damage to the pavement and removal of gravel.

Views and Vegetation

- View restoration is desired and specified in other management documents. The CLR provides a phased approach including a range of vegetation treatment techniques for view restoration. Interpretive nodes identified in predecessor documents including the *General Management Plan*, the *Fence Lines, Fields, and Forests CLR*, and the 2010 viewshed study are addressed.
- The CLR includes a range of techniques for grassland vegetation management, including mowing and haying, goats, and fire management.
- The National Capital Region office is undertaking a project that uses a systematic approach to map legacy vegetation. A definition for "legacy vegetation" has not yet been developed, but will encompass notable individual trees such as unique varieties/species, trees present during the battles, marker trees, etc.

Buildings, Structures, and Small-scale Features

- The CLR provides recommendations for comprehensive assessment and treatment of the Chinn house foundation and Hooe cemetery wall.
- CLR provides guidance for reinstallation of the west half of the New York Monuments gate and protection of the gate from vehicles. It has been hit by cars twice, including in 2015.

Archeological Resources

- Indigenous archeological sites have been recorded within the study area. Indigenous use of the area is not addressed by current significance statements. Section 110 evaluation is scheduled to begin in 2018.
- The Chinn Ridge property has the potential to yield significant battle-related information on the actions that occurred during both 1st and 2nd Manassas, including troop movements and artillery locations, as well as providing information on post-battle activities, including possible burial locations.
- Portions of the park [including Chinn Ridge] need to be examined to ensure that archeological resources under NPS stewardship are conserved, protected, preserved in situ and managed for long-term scientific research and for appropriate public interpretation and education. Information about the location, characteristics and significance of the majority of archeological resources is lacking. This lack of information seriously impairs the ability of park managers, planners, interpreters, law enforcement officers and other specialists to carry out their responsibilities. The consequences of having insufficient reliable information about archeological resources include: 1) destruction or unacceptable damage to archeological resources from development, park operations, resources management, visitor use, vandalism or natural/

human disasters; 2) loss of significant and scientifically valuable artifacts due to development, operations, resources management, visitor use, vandalism or natural/human disasters; and 3) loss of significant scientific knowledge due to destruction or damage to archeological properties.

- Hooe Cemetery
  - Changes to the cemetery require notification of families.
  - There is no cemetery management plan. The CLR recommends a parkwide study.

Visitor Experience and Interpretation

- The CLR will consider strategies to improve visitor understanding of the landscape through use of interpretive landscape features and supporting information.
- The wayside along the North Chinn Drive interpreting the final Union position at Second Manassas is frequently missed by visitors because it faces the wrong direction on the one-way street. The CLR recommends a new location for interpreting the final Union position at Second Manassas along the Sudley Road grade at the east side of the study area.

TREATMENT APPROACH

The US Secretary of the Interior provides professional standards and guidance for the preservation treatment of cultural landscapes listed in or eligible for the National Register of Historic Places. Four approaches to the treatment of cultural landscapes are defined, including Preservation, Restoration, Rehabilitation, and Reconstruction.[20] Each approach is defined and its potential appropriateness for application to the study area is explained.

Preservation

Preservation is the act of sustaining the existing form, integrity, and materials of a historic property. This approach is most appropriate for properties that have a high level of integrity and often includes presence of features or conditions from multiple time periods.

Although preservation is an appropriate approach for treatment of the study area landscape, preservation limits the ability to achieve the desired conditions expressed in previous planning documents including clearing vegetation to reestablish historic views and restoring select fence segments.

Rehabilitation - Preferred Treatment Approach

Rehabilitation allows repairs, alterations, and additions necessary to enable a compatible use for a property, as long as the portions or features which convey the historical, cultural or architectural values are preserved.

The park's enabling legislation and General Management Plan emphasize preservation and rehabilitation as the primary treatment approaches for Manassas National Battlefield Park. Rehabilitation with an emphasis on preservation is the most appropriate treatment approach for the study area landscape, and is the selected approach for the treatment tasks presented in the next chapter. This will allow for clearing vegetation to reestablish historic views, restoration of selected fence segments, and other treatments designed to enhance the ability of the landscape to reflect its historic condition while supporting visitor experience and preserving features which convey the historical values of the property. Under this approach, features that are not compatible with the historic character of the property may be removed.

New elements that are compatible with historic conditions may be added to address current needs, including revealing missing or hidden features to enhance interpretation, and improving accessibility. Design of these elements requires careful consideration of providing additions that complement the historic features without creating a false sense of history. These alterations should also be designed to be differentiated from the historic features.

Restoration

Restoration is the process of depicting the form, features, and character of a property as it appeared at a particular period in time. Elements that relate to earlier or later periods are removed in order to clearly represent one time period. A high level of documentation is necessary to ensure that the site accurately represents the historic period.

Because the study area includes historic landscape characteristics and features that are associated with each of the three periods of significance, restoration is not the most appropriate overall treatment approach.

Reconstruction

Reconstruction is the act of using new construction to depict a non-surviving site, landscape, building, structure, or object as it appeared at a specific period of time in its historic location. This approach is used only in cases where the highest level of significance applies and detailed documentation exists regarding the historic conditions of the property.

Given the expressed desire to preserve contributing features associated with multiple periods of significance, reconstruction is not the most appropriate treatment approach for the study area.

ENDNOTES

1 National Park Service, *Manassas National Battlefield Park, Final General Management Plan/Environmental Impact Statement* (Washington, DC: US Department of the Interior, National Park Service, 2011 [final submitted 2008; signed 2011]), iv-v.

2 National Park Service, *Final General Management Plan/Environmental Impact Statement, Manassas National Battlefield Park.*

3 National Park Service, *Final General Management Plan/Environmental Impact Statement, Manassas National Battlefield Park,* 2-48

4 National Park Service, *Final General Management Plan/Environmental Impact Statement, Manassas National Battlefield Park,* 2-53

5 National Park Service, *Final General Management Plan/Environmental Impact Statement, Manassas National Battlefield Park,* 2-47

6 National Park Service, *Final General Management Plan/Environmental Impact Statement, Manassas National Battlefield Park,* 2-53

7 National Park Service, *Final General Management Plan/Environmental Impact Statement, Manassas National Battlefield Park,* 2-53 and 2-54

8 Daniel Schaible, *Fence Lines, Fields, and Forests: Manassas National Battlefield Cultural Landscape Report*, (Washington, DC: National Park Service, National Capital Region, Cultural Resources Program, 2013),94

9 Schiable, *Fence Lines, Fields, and Forests: Cultural Landscape Report,* 94

10 Schiable, *Fence Lines, Fields, and Forests: Cultural Landscape Report,* 94

11 Schiable, *Fence Lines, Fields, and Forests: Cultural Landscape Report,*95

12 Schiable, *Fence Lines, Fields, and Forests: Cultural Landscape Report,* 97-98

13 A. Belden, Jr., G.P. Fleming, and N.E. Van Alstine, *A natural heritage inventory of Manassas National Battlefield Park,* Nat. Heritage Tech. Rep. 98-7 (Richmond, VA: Virginia Dept. of Conservation and Recreation, Division of Natural Heritage, Richmond, 1998).

14 Belden, et al., *A natural heritage inventory of Manassas National Battlefield Park,* 60-61.

15 Belden, et al., *A natural heritage inventory of Manassas National Battlefield Park,* 61-62.

16 Walker Collaborative, History Associates, Inc., and Land Planning & Design Associates, *Manassas Battlefields Viewsheds Plan*, ABPP Grant No. GA-2255-06-007; Prince William County Contract No. 71312NO0 (Prince William County, Virginia, 2010), 38.

17 Walker Collaborative, *Manassas Battlefields Viewsheds Plan Background Study*, 137-138.

18 Walker Collaborative, *Manassas Battlefields Viewsheds Plan*, 48.

19 NPS Management Policies (2006) for Preexisting Commemorative Works, 9.6.4

20 Charles A. Birnbaum, and Christine Capella Peters, *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*, (Washington, DC: Department of the Interior, National Park Service, 1996), 3-5.

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Treatment Plan

Chapter 5

Chapter title page: Chinn House, 1940, MANA Archives.

Chapter 5: Treatment Plan

Within units of the National Park Service, the purpose of a landscape treatment plan is to provide guidelines for preserving and enhancing historic landscape characteristics and features while accommodating current park use. The treatment plan describes the desired future conditions of the landscape, beginning with a Vision, Goals, and Objectives. The treatment plan begins with general recommendations that address broad-scale treatments for the overall project area organized by landscape characteristic. This is followed by specific treatment tasks organized according to two landscape character areas: New York Monuments Area and Chinn Farm Area.

Landscape treatment guidance was informed by research and analysis conducted to develop Part 1 of this CLR as well as guidance provided by the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes* and *National Park Service Director's Orders 28: Cultural Resources Management Guidelines*.[1]

This CLR applies the overall treatment approach of rehabilitation to the cultural landscape. This is consistent with the park's enabling legislation and General Management Plan, which emphasizes preservation and rehabilitation within Manassas National Battlefield Park. Treatment emphasizes rehabilitation of views through vegetation management, restoration of selected fence segments, and other treatments designed to enhance the ability of the landscape to reflect its historic condition while supporting visitor experience and preserving features. New elements that are compatible with historic conditions are added to address current needs, locations of selected missing or hidden features are revealed to enhance interpretation, and accessibility is improved.

An on-site workshop, follow-up conference calls, and email correspondance provided opportunitites for representatives of the National Park Service National Capital Region and Manassas National Battlefield Park to guide development of the treatment options. This process, as well as the alternatives considered, are described in Appendix B: Treatment Alternatives.

TREATMENT VISION

The vision for the rehabilitation of the cultural landscape is:

> Improve the ability of the landscape to support visitor experience through interpretive landscape strategies and improved accessibility while preserving significant landscape characteristics and revealing important relationships that are currently obscured.

TREATMENT GOALS

1. **Land Use**
    a. Evaluate external viewsheds from the Chinn Ridge project area and provide strategies for protection outside the park boundaries.
2. **Spatial organization**
    a. Rehabilitate selected field and farmyard spatial organization.
    b. Rehabilitate spatial organization at the Chinn Farm core.
    c. Define park maintenance yard operations areas.
3. **Natural Systems and Topography**
    a. Preserve contributing topographic features including ridges and valleys.
    b. Reduce erosion on steep slopes.
    c. Protect and restore stream and floodplain corridors.
4. **Circulation**
    a. Increase universal accessibility and improve pedestrian and vehicular circulation routes following ABAAS and Outdoor Recreation Standards for trail, road, interpretation, and recreation facility improvements.
    b. Improve trail connections to adjacent park sites.
    c. Provide vehicular protection solutions for the historic New York Avenue gates.
    d. Recommend improvements to access and conflicting uses at park maintenance area.
5. **Buildings, Structures, and Small-Scale Features**
    a. Provide stabilization guidance for the remnant ruins for the Chinn House and other masonry features on the property.
    b. Consider rehabilitating Chinn House as a landscape feature.
6. **Vegetation and Views**
    a. Define historic views, now obscured by woody vegetation, to the New York Monuments, the Stone House, and the Crossroads for Sudley Road and Warrenton Turnpike, and Henry Hill.

b. Provide vegetation management guidance to improve legibility of the historic character of the landscape.

c. Provide recommendations for vegetation management strategies to support healthy forests, fields, and specimen and legacy vegetation.

7. **Archeological Resources**

   a. Identify the need for additional archeological investigations within the study area.

8. **Visitor Experience**

   a. Provide strategies to improve visitor understanding of the Chinn Farm through use of interpretive landscape features and supporting information.

   b. Provide strategies to improve visitor understanding of the New York Monuments Area through landscape treatment and supporting information.

TREATMENT RECOMMENDATIONS

Treatment recommendations are presented in three sections including study area, Chinn Farm LCA, and New York Monuments LCA.

STUDY AREA TREATMENT RECOMMENDATIONS

General treatment recommendations for the overall Chinn Ridge landscape emphasize preservation of contributing features and rehabilitation to provide enhanced visitor experience and accessibility. General treatment recommendations apply to both the Chinn Farm and New York Monuments Landscape Character Areas. Treatment recommendations are presented as they relate to Land use; Spatial Organization; Natural Systems and Topography; Circulation; Buildings, Structures, and Small-scale Features; Views and Vegetation, and Archeological Sites. Study area treatment recommendations are illustrated on drawings RT-1 and RT-2. Treatment tasks are described in the narrative and locations are identified on the drawings using the task number.

LAND USE, STUDY AREA

Recommended treatment for land use emphasizes long-term protection of cultural resources and viewsheds that may be impacted by land use outside of the study area boundary.

Task 1. Work with municipalities and property owners to encourage sensitive future development of adjacent properties and retain or increase vegetative buffers.

Task 2. Continue to work with VDOT as part of mitigation for the I-66 project. Consider requesting development of a view model to evaluate the potential impacts of the proposed highway changes on the park. If it is determined that the new highway will affect the CLR project study area, it may be necessary to adjust treatment recommendations to respond to this finding.

SPATIAL ORGANIZATION, STUDY AREA

Treatment recommendations for spatial organization emphasize preservation of contributing patterns, changes to vegetation to better represent the patterns of fields and woods present during the historic period, addition of fences, and relocation of the Chinn Ridge parking lot. Recommendations for spatial organization are focused on preserving contributing patterns of spatial organization, including the general patterns of open fields with edges defined by woodland, and rehabilitating the formal organization of Chinn Farm and the cluster of monuments at the New York Monuments area to improve the ability of the landscape to represent the historic patterns and enhance visitor understanding of historic conditions. Treatments for spatial organization are directly related to Circulation (Tasks 7, 51, 52, and 54), Buildings, Structures and Small-Scale Features (Tasks 11, 37-40, 64-66, 68, 72, 75-80), Views and Vegetation (12-29, 87), Constructed Water Features (Tasks 85 and 86), and Archeological Sites (Tasks 88-90).

Natural Systems and Topography, Study Area

Recommended treatment for natural systems and topography emphasizes repair of eroded areas and protection of the ground surfaces and stream banks from actions that create the potential for erosion. Best management practices related to steep slopes, bare earth, and stream banks support these recommendations and are presented in Chapter 6.

Task 3. Preserve contributing natural systems and topography, including Chinn Ridge, the ridge occupied by maintenance facilities (Bald Hill), the ridges occupied by the New York Monuments, deeply cut stream valleys, soils suitable for agricultural production, Chinn Spring, and study area streams (Youngs Branch, Chinn Branch, Dogan Branch, intermittent streams) and associated floodplains. See Figure 3-4 in Chapter 3 for the location of contributing natural systems and topographic features.

Task 4. Maintain erosion-resistant ground surfaces in all locations possible through vegetation, leaves, rock outcrops, or pavement.

- Monitor ground surface conditions according to best management practices (BMPs) presented in Chapter 6. Protect Youngs Branch and Chinn Branch by maintaining a wooded buffer around streams.
- Monitor steep slopes for areas of landscape erosion. Stabilize using best management practices consistent with the cultural landscape.

Task 5. Restore Youngs Branch and Chinn Branch streams and associated floodplains.

- Continue to work with VDOT on the adjacent I-66 project to develop improved stormwater management techniques to mitigate impacts to the study area caused by high quantity and velocity runoff from the highway.
- Continue to work with local municipalities and nearby property owners to implement stormwater management techniques that reduce runoff into study area streams.
- Consider undertaking a comprehensive assessment of stream conditions and historic, current, and predicted stormwater conditions affecting the study area. Restore the streams following best management practices described in Chapter 6 and the *Virginia Stream Restoration and Stabilization Best Management Practices Guide*.[3]

Task 6. Repair areas of landscape erosion on the slope of Chinn Ridge east of the Fletcher Webster Monument and near the intersection of North Chinn Road and South Chinn Road on Bald Hill according to best management practices in Chapter 6.

CIRCULATION, STUDY AREA

General treatment recommendations for circulation focus on improving visitor experience, increasing universal accessibility, and enhancing wayfinding and safety for pedestrians and motorists. Specific recommendations for circulation are provided in the recommendations for the New York Monuments and Chinn Farm Landscape Character Areas.

Task 7. Preserve contributing circulation routes by maintaining roads and trails that follow historic routes. Maintain circulation routes in good condition using existing surfaces unless otherwise indicated.

- Contributing vehicular circulation routes are: New York Avenue, North Chinn Drive, South Chinn Drive, Maintenance Access Road (see Chapter 3).
- Contributing pedestrian routes are the Chinn Ridge Trail and segments of the Second Manassas Trail that follow historic farm roads (see Chapter 3).

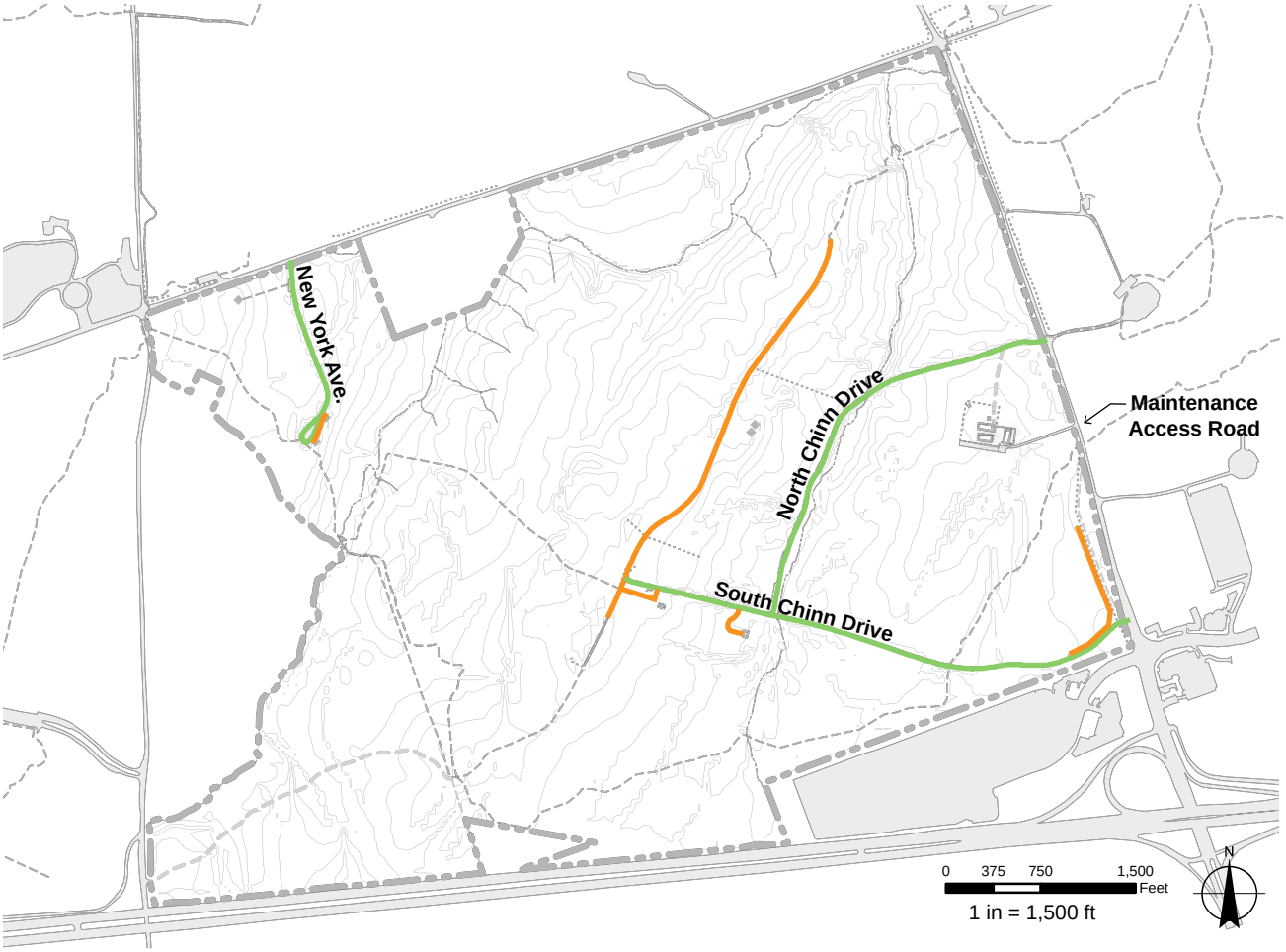
Task 8. Provide universally accessible pedestrian routes between barrier-free parking areas and key interpretive landscape locations (described under Visitor Experience) at the New York Monuments and Chinn Farm Areas (see Figure 5-1).

- Comply with federal regulations and codes to meet outdoor trail accessibility standards, including the Architectural Barriers Act Accessibility Standards (ABAAS). Universally accessible surfaces are described in Chapter 6 and include:
  - Asphalt (including chip and seal asphalt and rustic pavement)
  - Crushed fines of limestone
  - Puncheon
  - Boardwalk
  - Trail bridge

Task 9. Work with Virginia DOT to improve trail crossings at Lee Highway/Groveton Road intersection and Lee Highway/Sudley Road intersection.

- Consider widening the trail along Groveton Road to the intersection with Lee Highway to provide a 5-foot wide pedestrian zone.
- Consider adding pedestrian landing pads and crosswalks at Groveton Road/Lee Highway intersection.
- Consider adding pedestrian landing pads and crosswalks at Sudley Road/Lee Highway intersection.

Figure 5-1. Study area recommended universally accessible pedestrian circulation routes (more specific recommendations for circulation are provided in the recommendations for the New York Monuments and Chinn Farm landscape character areas)



Legend

- Interpretive driving tour road
- Universally accessible route
- Chinn Ridge CLR study area

BUILDINGS, STRUCTURES, AND SMALL-SCALE FEATURES, STUDY AREA

Remnants of buildings, structures, and small-scale features provide evidence of historic use of the site and give texture to the historic landscape. At a broad scale, fences, stone features, cannons, interpretive waysides and battlefield markers support the interpretation of the themes associated with the study area. Guidance for treatment of specific features is provided in the landscape character area sections of this chapter.

Task 10. Undertake a comprehensive assessment of the stonework at the Chinn House foundation, Hooe cemetery wall, and Chinn Drive culverts according to Secretary of the Interior Standards. Based on the assessment, develop maintenance and monitoring protocols to preserve the resources.

Task 11. Follow guidelines for fencing presented in the *Fence Lines, Fields, and Forests CLR*.

- Unless otherwise noted, maintain and preserve the existing fencing within the study area. (*FFF CLR* Task 1).
- Restoration of historic fence lines should focus on additional field fencing rather than road fencing (*FFF CLR* Task 7).
- Unless otherwise noted, preserve historic fencerows (*FFF CLR* Task 8).
- Use worm fencing as the default fence type for restored fences within the park. (*FFF CLR* Task 9).
- Where historic documentation is available, restore fences to their historic fence type (*FFF CLR* Task 10).
- Remove worm fences from nonhistoric locations. Replace worm fences in non-historic locations with compatible single rail pierced post fences, or in limited circumstances a smooth wire steel post fence. (*FFF CLR* Task 11).

VIEWS AND VEGETATION, STUDY AREA

Treatment of Views and Vegetation at Chinn Ridge is directly associated with goals focused on improving the ability of the landscape to represent historic conditions and enhance the ability of visitors to understand the activities that occurred on the landscape (Goals number 6 and 8). Within the study area, open fields direct views and woodlands define edges of open spaces. Alteration of vegetation is the primary tool applied to manage views in this rural historic landscape. Therefore, Views and Vegetation are presented together. General information about treatment of views is described first, followed by vegetation. Descriptions of treatment tasks follow. Recommended Treatment Drawing RT-1 illustrates locations of tasks associated with views and vegetation. RT-2 illustrates the general future condition following implementation of the recommended treatments.

View Rehabilitation

Study area treatment recommendations for Views emphasize rehabilitation of visual relationships that are critical to understanding battle movements associated with the First and Second Battles of Manassas. These include views within the study area as well as those between the study area and other locations, in particular, Henry Hill and the Stone House. A secondary focus is on maintaining visual buffers between the study area and adjacent modern development.

The key view locations are illustrated in Figure 5-2 and described here:

A. Axial view along Chinn Ridge. This view was established as a primary sight line during development of the early plantation. During both battles, the view along the ridge northeast of the house was an important visual corridor between Union troops oriented along the ridge and the Confederate troops advancing from the direction of the house.

B. Visual relationship between Chinn Ridge and Henry Hill related to First Manassas and Second Manassas. In both battles, this was a critical connection between the Union troops on Chinn Ridge and their counterparts on Henry Hill.

C. Visual relationship between Chinn Ridge and Chinn Branch/Bald Hill related to First Manassas. In the last phase of the battle, Confederate troops advanced from positions along Chinn Branch to displace Union troops from the ridge.

D. Visual relationship between Chinn Ridge and Stone House Intersection/ Buck Hill related to First Manassas and Second Manassas. During both battles, this view provided a visual connection between Union troops on Chinn Ridge and nearby Buck Hill.

E. Visual relationship between New York Monuments and Chinn Ridge related to Second Manassas. On the final day of the battle, Union troops

positioned on Chinn Ridge saw the advancing Confederate charge as the Union troops to the west retreated from this location.

F. Visual relationship between 14th Brooklyn Monument and 5th and 10th New York Monuments related to Second Manassas. On the final day of the battle, Union regiments positioned along the Warrenton Turnpike and the ridge now occupied by the 5th and 10th New York Monuments were devastated by the advancing Confederate line. When the monuments now occupying the high points were placed in 1906, they were arranged in a group so that each monument was visible from the other two.

G. Visual relationship between 14th Brooklyn Monument and Groveton related to Second Manassas. On the second day of the battle, an intense skirmish took place between Union troops positioned on the hill and Confederate troops to the west.

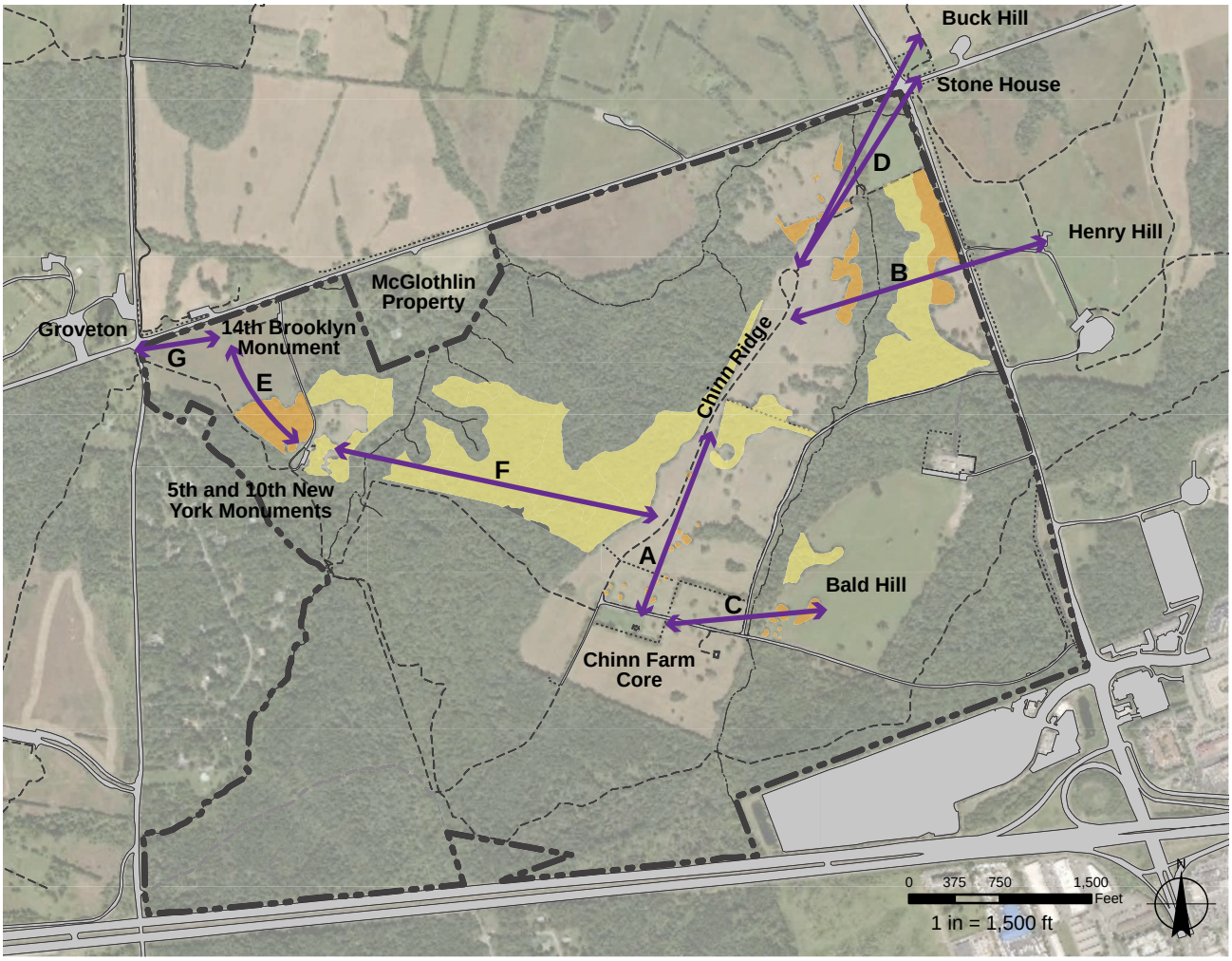
The areas identified for view rehabilitation on Figure 5-2 are general and not intended to indicate complete conversion of plant communities. Treatment task descriptions, Drawings RT-1 and RT-2, and Chapter 6 provide additional guidance.

Figure 5-2 illustrates locations for view rehabilitation identified through rigorous viewshed and vegetation analysis. Vegetation analysis is explained in the next section. Viewshed analysis identified areas where vegetation obscures key views between key observation points. The analysis applied an average tree height of 40 feet and viewing height of 5'-10", combined with elevation and slope data, to identify locations where conversion of vegetation will most affect visual relationships associated with battle accounts.[4]

A phased approach is recommended for view rehabilitation. Phase 1 view rehabilitation is focused on small to moderate-scale rehabilitation of key views that can be undertaken by NPS staff and volunteers as time allows. Tree heights vary over time and by vegetation community, and additional trees within the viewshed may become over 40 feet tall. As a result, routine maintenance of views will require removal of select additional trees. Phase 1 view treatment is described as Tasks 20 through 24.

Phase 2 view rehabilitation focuses on large-scale rehabilitation of views requiring capital funding and multiple years to accomplish. The multi-year staged approach is described in the section of Chapter 6 focused on vegetation. Phase 2 view treatment is described in Tasks 25 through 29.

Figure 5-2. Phase 1 and 2 View Rehabilitation



Legend

- General sightline of view to be rehabilitated
- Phase 1 View Rehabilitation
- Phase 2 View Rehabilitation
- Chinn Ridge CLR study area boundary
- **A** View along Chinn Ridge
- **B** View from Chinn Ridge to Henry Hill
- **C** View from Chinn Ridge to Chinn Branch/Bald Hill
- **D** View from Chinn Ridge to Stone House Intersection/Buck Hill
- **E** View from 14th Brooklyn Monument to 5th and 10th New York Monuments
- **F** View between New York Monuments and Chinn Ridge
- **G** View from 14th Brooklyn Monument to Groveton

Notes

The areas identified for view rehabilitation are general and not intended to indicate complete conversion of vegetative communities. Refer to Vegetation treatment recommendations for more detailed information.

Vegetation Rehabilitation

Recommendations for vegetation treatment in the study area emphasize rehabilitation of spatial organization and views through focused and broad scale vegetation management. The primary technique is conversion of tall trees and woodland vegetation to grassland/meadow or shrub land to emulate historic spatial characteristics and views between key locations. The treatment will rehabilitate critical viewsheds through vegetation management focused on selective conversion of woodland to lower vegetation community types, while protecting and preserving critical vegetation, legacy trees, sensitive species, stream corridors, and floodplains. Chapter 6 includes best management practices for transitioning vegetation communities to support the recommendations in this section.

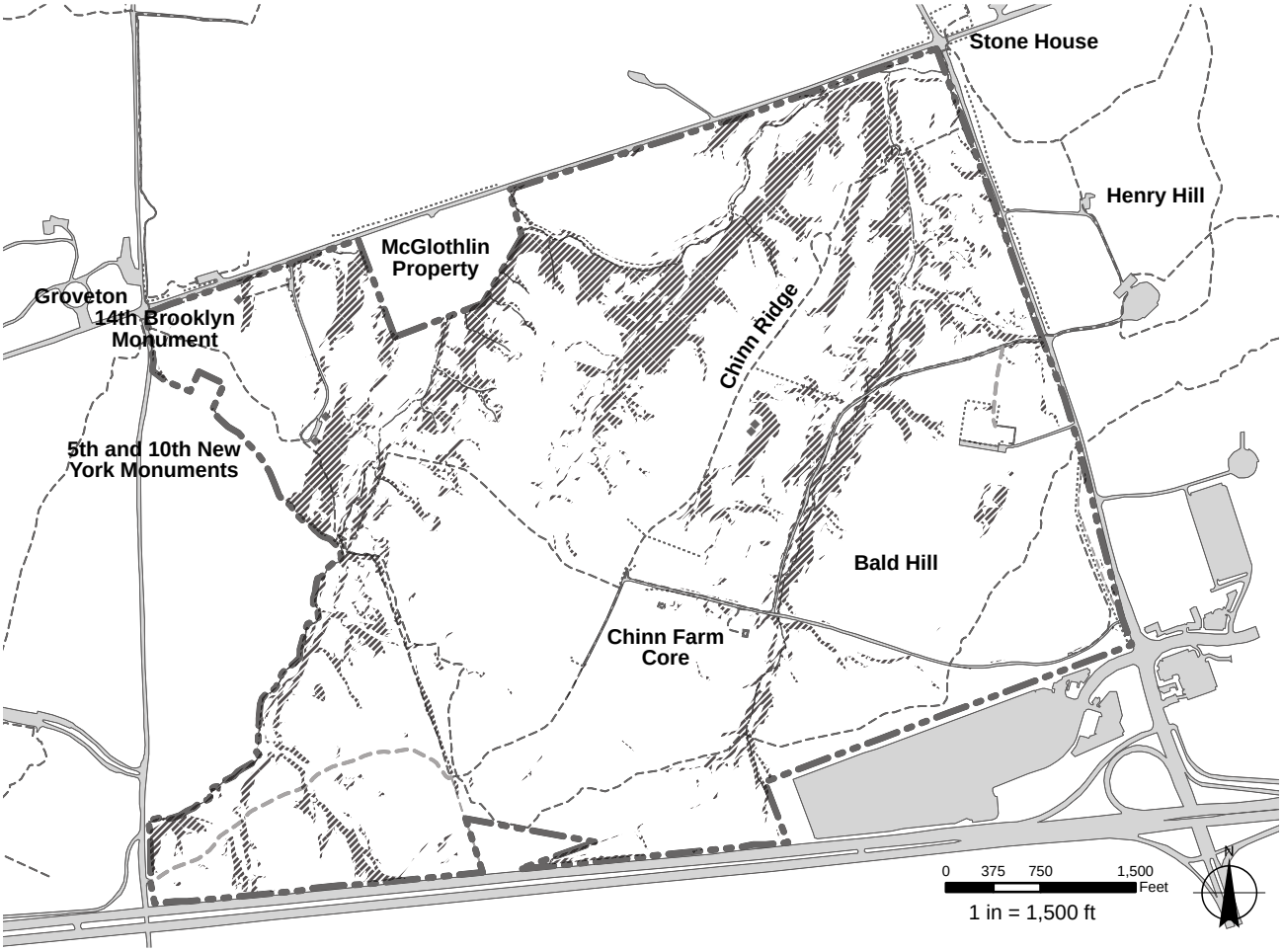
Four primary factors were considered when developing the methodology for vegetation modification to rehabilitate missing views: slope and soil erodibility, relative elevation, existing vegetation community, and proximity to streams.

Slope and soil erodibility

Slopes within the study area are categorized based on the physical limitations presented by the topography. These slopes are illustrated on Figure 5-3. For the purpose of vegetation modification, the primary concerns related to slope are the potential for soil erosion and the capability of equipment to mow grass or bale hay. Gentle and moderate slopes are below 25% grade and typically occur on ridge tops and slopes. These areas may be stabilized with grasses and mown with conventional equipment. Steep slopes greater than 25% grade cannot be easily managed with baling equipment. In addition, these slopes are vulnerable to severe erosion and debris flows.[5]

Slope and soil erodibility are generally correlated within the study area, and for the purpose of this analysis will be combined. Areas of gentle to moderate slopes, commonly Arcola silt loam soils, have a slight erosion hazard (off road/trail). Areas of steep slopes are typically Arcola-Nestoria complex soils, and have moderate erosion hazard (off road/trail).[6] Rocky soils and uneven grades are also likely to be present within the areas to be rehabilitated. These conditions are more likely to occur in areas of steep slopes.

Figure 5-3. Slope analysis within the study area.



Legend

Steep slopes (>25%)

Chinn Ridge CLR study area boundary

Relative elevation

Relative elevation is a primary concern for the reestablishment of visual connections between key locations within the study area and the broader battlefield. This analysis builds on the view analysis (refer to Views treatment recommendations). For rehabilitation of broad-scale vegetation patterns, this analysis assumes that trees within 40 vertical feet of the viewer's elevation will block views to other areas. In order to rehabilitate views, the proposed vegetation at these "high elevation" locations must be short enough to avoid obscuring the view, such as hayfields or grassland. At "low elevations" (at least 40' below the viewer) in areas that are typically located along streams and floodplains, many of the trees will be out of the viewshed. Retaining trees/forests, selective tree removal , or partial conversion of forests to shrub land at these low elevation locations may be appropriate to maintain views while preserving vegetation. This concept is illustrated in Figure 5-4 and Figure 5-4.

Existing vegetation

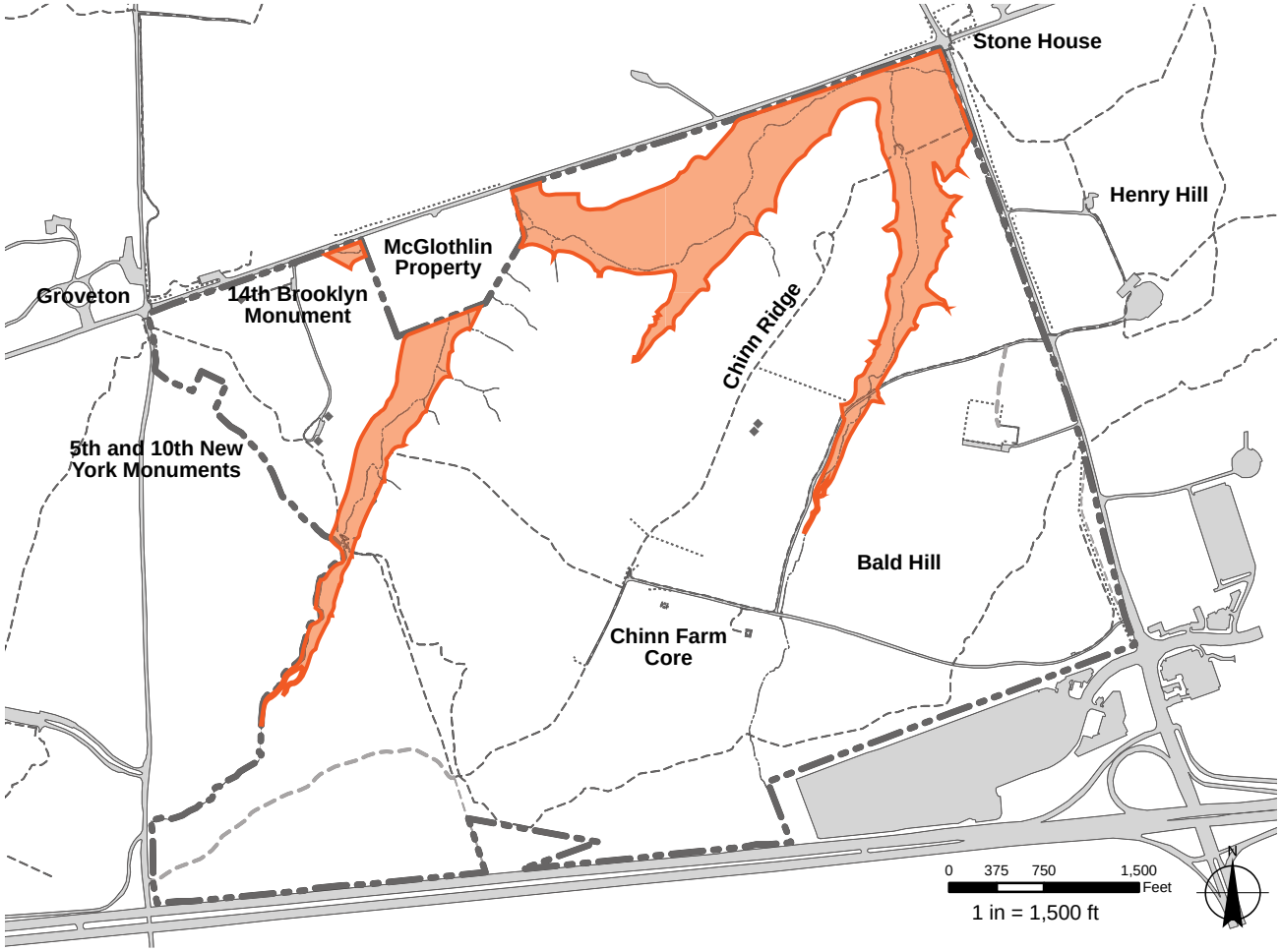
Existing vegetation communities within the areas to be modified for view rehabilitation consist of mixed successional forest, and floodplain forest. These vegetation communities are described in detail in Chapter 3.

Successional forests typically occur in the locations of old fields. These areas are unlikely to yield legacy trees or high quality woodlots dating from the historic period.

Oak-hickory forests typically occur in locations of historic woodlots, however, this late successional species mix also may occur in limited areas that were once cleared. Of particular interest are the locations characterized by hardpan basic oak-hickory forest. This vegetation community is considered uncommon or rare in Virginia, and requires additional evaluation prior to vegetation modification. High-quality stands of hardpan-basic oak-hickory forest may be retained. Virginia pine may dominate this vegetation community in heavily disturbed sites that have previously been cleared. In these locations, it may be appropriate to treat the vegetation community similar to other areas of upland successional forest. Locations of hardpan basic oak-hickory forest identified in the 2011 Manassas National Battlefield Park vegetation survey are on Figure 5-7.

Floodplain forest is located along Chinn Branch and Youngs Branch. While these riparian communities occur at low elevations within the study area, the community includes some species that may grow to heights exceeding 70 feet, which may obscure views.

Figure 5-4. Low elevation areas within the study area.



Legend

- Elevation 215 feet above sea level (40 feet below average height of viewer)
- Low elevation locations
- Chinn Ridge CLR study area boundary

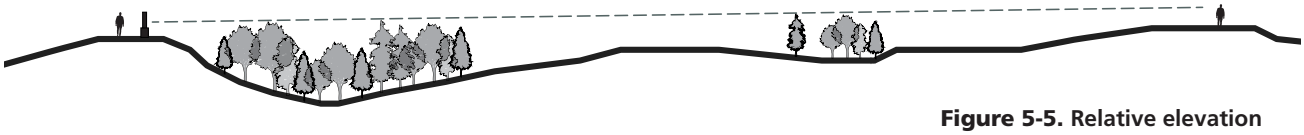


Figure 5-5. Relative elevation (not to scale).

Proximity to streams

To protect streams, retain native woody vegetation as a riparian buffer. Riparian buffers are used to protect water quality adjacent to perennial and intermittent streams as well as lakes, ponds, and natural springs. Effective riparian buffers filter sediment and nutrients, maintain desirable water temperature, and provide wildlife habitat. The National Capital Region of the National Park Service recommends that all riparian buffers be a minimum of 100 feet in width, measured from the top of the stream bank. Within the study area steep slopes may require increased buffer widths.[7]

A riparian buffer ranging from 100 feet to 300 feet is recommended for the study area. This encompasses a minimum 100-foot buffer measured from the stream bank, as well as the entire 100-year floodplain associated with Chinn Branch, Youngs Creek, and Dogan Branch. Management of the riparian buffer is described in the following section. More precise delineation of the buffer will be determined through an environmental assessment according to NEPA requirements.

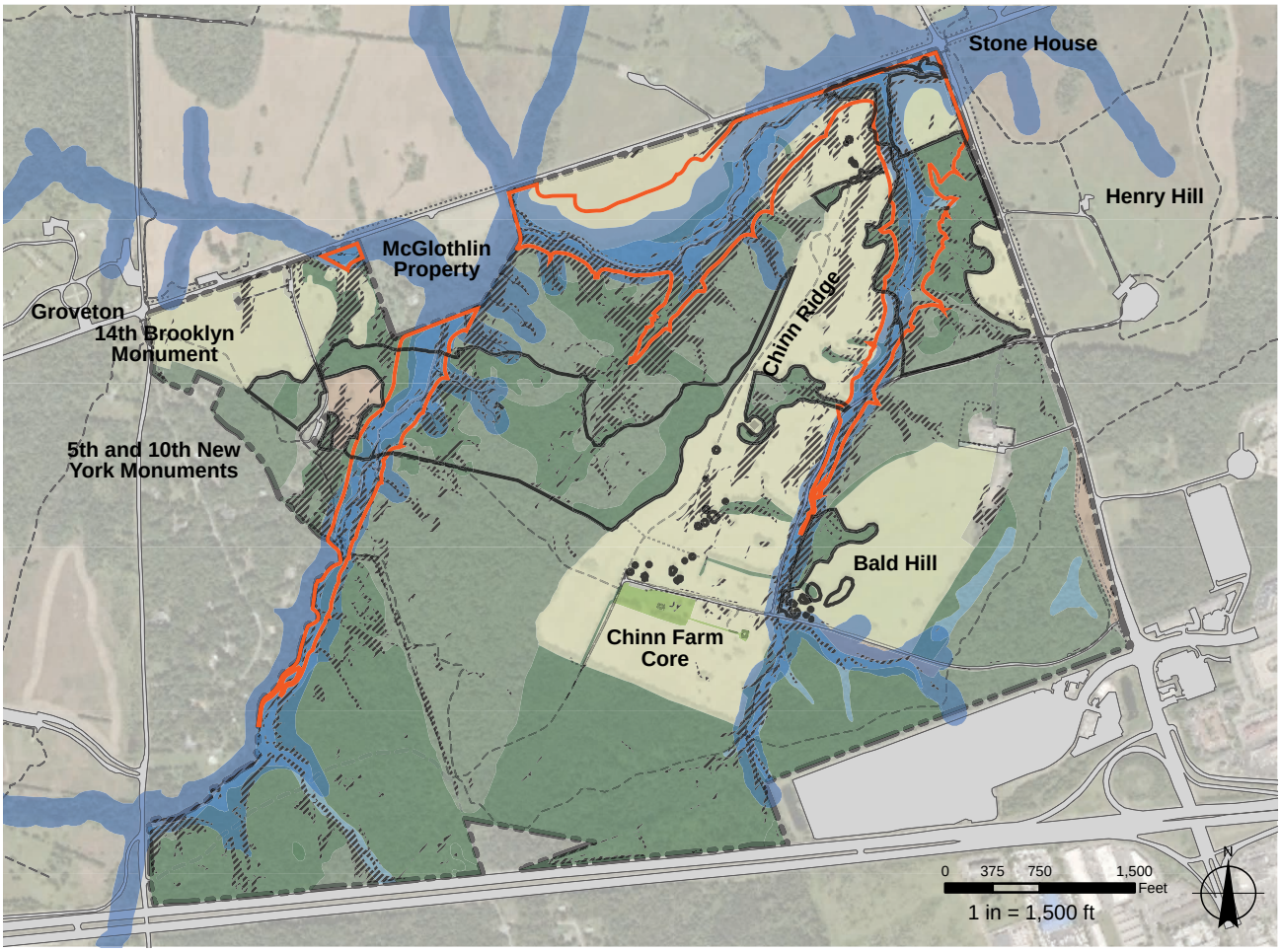
Vegetation Analysis Synthesis

Considered together, the four factors of slope and soil erodibility, relative elevation, existing vegetation, and proximity to streams, provide a basis for analysis of the landscape to determine where different proposed vegetation types may be appropriate. Figure 5-6 illustrates information related to these four factors synthesized into one diagram. The next section explains identification of vegetation modification types to be applied in the future.

Vegetation Modification Types

Vegetation treatment is described according to five types of vegetation modification, each of which results in a different end condition. When the conversion is completed, the treated areas will be either native grassland/meadow for hay lease, native grassland/meadow for open viewshed management, successional shrub land, riparian buffer managed for view corridors, or floodplain protection zone. Table 5-1 identifies existing conditions that are appropriate for specific modification types. Figure 5-7 illustrates the general locations of the vegetation types following conversion.

Figure 5-6. Vegetation Analysis Synthesis



Legend

- Existing oak-hickory forests (Dry-Mesic Acidic Oak-Hickory Forest, Hardpan Basic Oak-Hickory Forest)
- Existing successional forests (Successional Mixed Deciduous Forest, Successional Virginia Pine Forest, Successional Old-field Eastern Red-Cedar Forest, Successional Vine-Shrubland, Planted Evergreen Forest)
- Existing floodplain forests outside riparian buffer (Tuliptree Small-Stream Floodplain Forest, Pin Oak-Swamp White Oak Seasonal Pond)
- Existing native grassland/meadow (Successional Meadow/Grassland)
- Existing hayfields
- Existing mown lawn
- 100-300 foot riparian buffer (encompassing minimum 100-foot buffer and 100-year floodplain)
- Low elevation areas
- Steep slopes (>25%)
- Areas to be selectively cleared for view rehabilitation
- Chinn Ridge CLR study area boundary

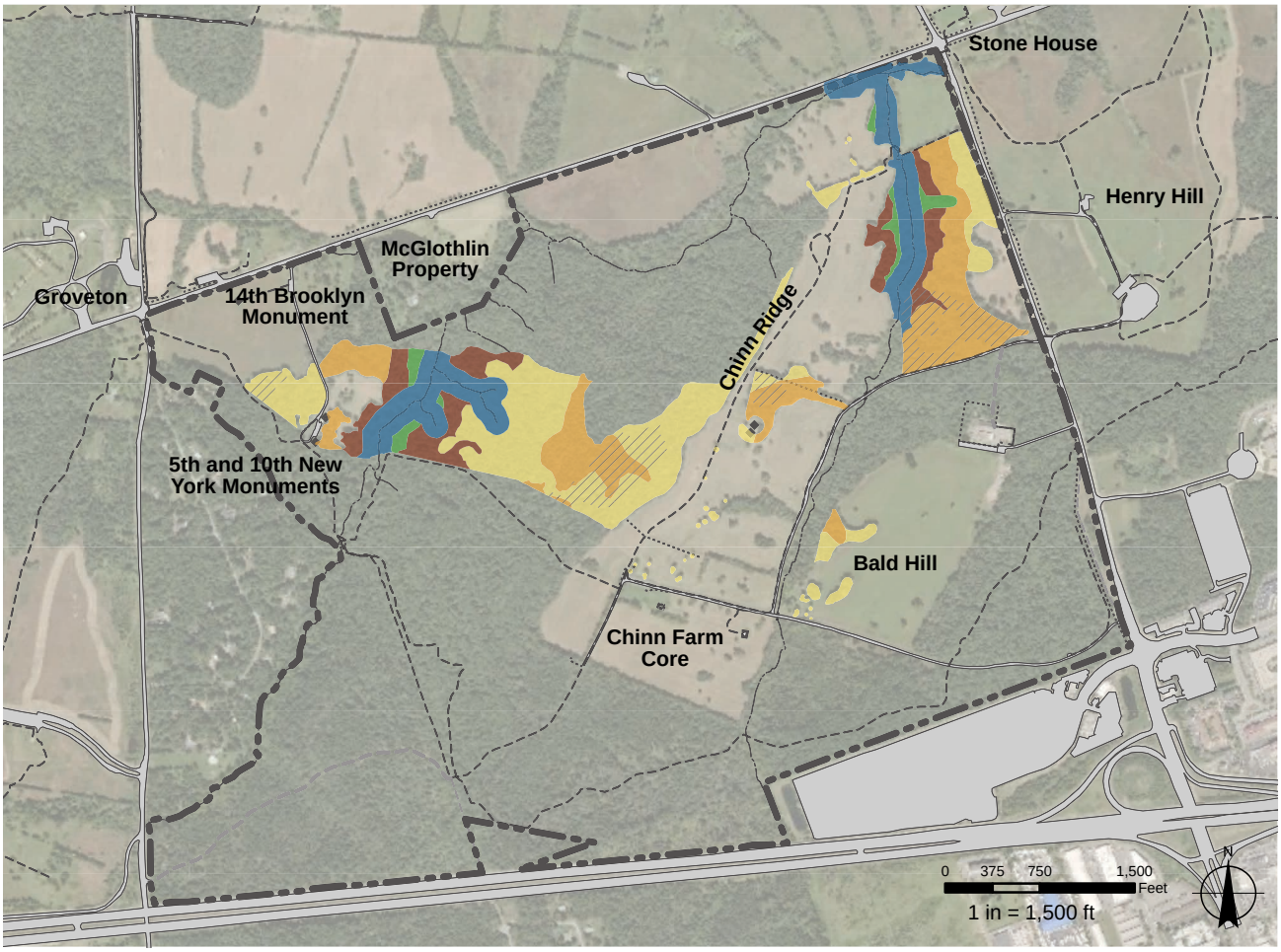
Vegetation Modification Type A: Native Grassland/Meadow for Hay Lease (See Figure 5-7).

- This transition is appropriate for existing mixed successional forest and oak-hickory forest situated on gentle to moderate slopes. In these areas, rocky soils and archeological features are limited.
- Remove woody vegetation and grub stumps. Preserve selected individual trees identified by detailed field survey and suited to open areas.
- Establish hayfields and manage through hay lease by annual mowing. Within the battlefield park, hay harvesting is a cost-effective means of maintaining open space without placing additional maintenance burdens on park staff, and is considered the preferred approach for vegetation modification.

Vegetation Modification Type B: Native Grassland/Meadow for Open Viewshed Management (See Figure 5-7).

- This transition is appropriate for existing mixed successional forest and oak-hickory forest situated on uneven grade, rocky soils, steep slopes, or other limiting surface conditions. This transition type is to be used at higher elevations where native grassland is necessary to reestablish significant views.
- Establish native grassland/meadow. Maintain native grasses through periodic mowing or alternate means of vegetation management that may include goat grazing or prescribed fire. If mown, this vegetation modification type corresponds to Class C Mowing Areas in the 2016 Mowing Plan for Manassas National Battlefield Park. Class C Mowing Areas are mown every two years to maintain open viewsheds, promote wildlife habitat, and manage exotic invasive plant species.
- Maintain selected individual trees or clusters of trees in locations where steep slopes, rocky soils, or other limiting factors necessitate woody vegetation to stabilize the ground surface, and where the woody vegetation does not interfere with viewshed rehabilitation. Maintain selected trees with cultural value following careful consideration of relative benefits and challenges association with retention.
- This vegetation modification type may also function as an intermediate stage between clearing woody vegetation and establishing grassland/meadow for hay production. Following initial clearing of woodlands, the cleared area is likely to contain woody debris and stumps that may prohibit immediate hay harvesting or mowing. Grazing and controlled burning may be used until the restored grassland/meadow is in a condition where hay harvesting or mowing are viable options.

Figure 5-7. Vegetation Modification



Legend

- Estimated location of Vegetation Modification Type A: Native Grassland/Meadow for Hay Lease
- Estimated location of Vegetation Modification Type B: Native Grassland/Meadow for Open Viewshed Management
- Estimated location of Vegetation Modification Type C: Successional Shrub Land
- Estimated location of Vegetation Modification Type D: Riparian Buffer Managed for View Corridors
- Estimated location of Vegetation Modification Type E: Floodplain Forest Protection Zone
- Hardpan basic oak-hickory forest requiring additional evaluation
- Chinn Ridge CLR study area boundary

Notes

The areas identified for vegetation modification are general and not intended to indicate complete conversion of vegetative communities. Chapter 6 provides a stepped process to guide conversion of plant communities.

Vegetation Modification Type C: Successional Shrub Land (See Figure 5-7)

- This transition is appropriate for areas existing mixed successional forest and oak-hickory forest situated on uneven grade, rocky soils, steep slopes, or other limiting surface conditions. This transition type is to be used at lower elevations where successional shrub land vegetation will not interfere with significant views.
- Clear large woody vegetation. Select limited individual trees and shrub species may be maintained. Based on conditions, low stumps may be retained.
- Maintain through periodic mowing or alternate means of vegetation management that may include goat grazing or prescribed fire. If mown, this vegetation modification type corresponds to Class D Mowing Areas in the 2016 Mowing Plan for Manassas National Battlefield Park. Class D Mowing Areas are mown every three years to allow habitat to develop into a stage of successional shrub land, while preventing large woody vegetation from becoming reestablished.

Vegetation Modification Type D: Riparian Buffer Managed for View Corridors (See Figure 5-7)

- Maintain riparian buffers within 100 to 300 feet of existing perennial and intermittent streams. Vegetation may include areas of existing mixed successional forest, oak-hickory forest, or floodplain forest situated on uneven grade, rocky soils, steep slopes, wet soils, or other limiting conditions.
- Refer to Vegetation Modification Type E for management of native vegetation within 100 feet of the stream bank.
- Maintain existing oak-hickory forest, mixed successional forest, and floodplain forest for the remaining landward portion of the riparian buffer. Selectively prune or remove limited tall woody vegetation that blocks views, avoiding disturbance to the forest floor.

Vegetation Modification Type E: Floodplain Forest Protection Zone (See Figure 5-7)

- Avoid disturbing native vegetation within 100 feet of the stream bank. Maintain intact existing oak-hickory forest, mixed successional forest, and floodplain forest.
- Treatment of invasive exotic species is acceptable within the floodplain forest protection zone.
- Follow NPS protocols for addressing hazardous trees.
- Individually evaluate trees that dramatically affect key views, and prune or remove selected trees following careful consideration of relative benefits and challenges association with removal.

Table 5-1. Vegetation Community Transition for View Rehabilitation

	MIXED SUCCESSIONAL FOREST	OAK-HICKORY FOREST	FLOODPLAIN FOREST
GENTLE/ MODERATE SLOPES AND HIGH ELEVATION	Type A (native grassland/meadow for hay lease)	Type A* (native grassland/meadow for hay lease)	N/A
GENTLE/ MODERATE SLOPES AND LOW ELEVATION	Type A (native grassland/meadow for hay lease)	Type A* (native grassland/meadow for hay lease)	Type D (riparian buffer)
STEEP SLOPES AND HIGH ELEVATION	Type B (native grassland/meadow for open view management)	Type B* (native grassland/meadow for open view management)	N/A
STEEP SLOPES AND LOW ELEVATION (MINIMUM 100' FROM STREAM BANK)	Type C (successional shrub land)or Type D (riparian buffer)	Type C* (successional shrub land) or Type D (riparian buffer)	Type D (riparian buffer)
WITHIN 100' OF STREAM BANK	Type E (floodplain forest protection zone)		

*Vegetation transition from hardpan basic oak-hickory forest requiring additional evaluation.

Views and Vegetation Treatment Tasks

Task 12. Maintain existing woodland along the south and west boundaries of the project area as a visual buffer screening modern development.

Task 13. Maintain existing woodland along Sudley Road south of North Chinn Drive as a visual buffer screening modern development.

Task 14. Maintain existing woodland adjacent to McGlothlin property as a visual buffer screening modern development. Through the conservation easement on this parcel, retain the character of the adjacent property, as described in the easement as "tilling of the soil, the raising of crops, horticulture, forestry and gardening, including the keeping of animals and fowl, and also including any related agricultural activities such as dairies, stock pens, mills, etc. directly associated with the use of the land by the owner."[9]

Task 15. Retain existing native warm season grasslands/meadows managed as hayfields or for open viewshed and habitat. Follow vegetation management guidelines established through the *General Management Plan* and the *Fence Lines, Fields, and Forests CLR*.

- Continue to maintain the open, pastoral character of the landscape through hay harvesting and mowing (*FFF CLR* Task 1).
- Maintain newly restored grasslands/meadow through expanded hay harvesting, or, when necessary, mowing (*FFF CLR* Task 2.)
- When necessary, consider alternative means of vegetation management, including goat grazing and controlled burning (*FFF CLR* Task 3).

Task 16. Maintain a minimum 100 foot wooded buffer from streams, and do not conduct broad-scale clearing within the floodplain or other designated wetlands.

Task 17. Consider if the historic approach of utilizing woodlots for timber and grazing may be adapted as a management strategy for woodlots within the study area. Through grazing and clearing, woodlots were typically kept clear of understory brush and downed timber.

- For areas where recommended treatment proposes modification of woodlands to grassland, management of woodlots through lumber and grazing may provide a short-term intermediate phase through which understory growth is cleared.
- For long-term rehabilitation of areas that were historically managed as woodlots, consider establishing leases for lumber or grazing. Long-term reestablishment of the historic management strategy may lend further authenticity to the cultural landscape.

Task 18. Record and maintain legacy vegetation following guidance to be developed by NPS National Capital Region. Legacy vegetation has been recorded within the vicinity of the Chinn House foundation and includes larger specimens throughout the cultural landscape.

Task 19. Preserve existing view between 14th Brooklyn Monument and Groveton (View G). Maintain native grassland/meadow through hay lease to the west of the 14th Brooklyn Monument and regularly trim woody vegetation along Lee Highway to prevent disruption of the view.

Task 20. Remove trees along southeast side of Chinn Ridge trail to restore the view from the trail to the Chinn House foundation (View A) (phase 1).

- Remove individual trees or small groups of vegetation that obscure the view between the house foundation site and the Chinn Ridge trail.
- Restore the ground to be consistent with adjacent topography and native grassland/meadow vegetation for hay lease.

Task 21. Rehabilitate visual connection between Chinn Ridge and Henry Hill (View B) by modifying vegetation at the north end of Chinn Ridge (phase 1).

- Remove individual trees or small groups of vegetation that obscure the view between the Chinn Ridge trail and the Henry House.
- Restore the ground to be consistent with adjacent topography and native grassland/meadow vegetation for open viewshed management.

Task 22. Rehabilitate visual connection from Chinn Ridge to Bald Hill (View C) (phase 1).

- Remove individual trees or small groups of vegetation near the intersection of North Chinn Drive and South Chinn Drive that obscure the view between the Chinn House foundation and Bald Hill.
- Restore the ground to be consistent with adjacent topography and native grassland/meadow vegetation for hay lease.

Task 23. Rehabilitate visual connection between the Stone House site and Chinn Ridge as well as between Buck Hill and Chinn Ridge (View D) (phase 1)

- Remove only select individual trees or small groups of vegetation at the northeast corner of the study area that block views between Chinn Ridge and Buck Hill.
- Maintain remaining forest as riparian buffer.

Task 24. Rehabilitate visual connection between 5th and 10th New York Monuments and 14th Brooklyn Monument (View E)(phase 1)

- Remove trees north of 5th and 10th New York Monuments that obscures views to the 14th Brooklyn Monument.
- Restore the ground to be consistent with adjacent topography and native grassland/meadow vegetation for hay lease.

Task 25. Rehabilitate broad views between Chinn Ridge and Henry Hill (View B) by removing and/or selectively thinning trees north of North Chinn Drive, between the Chinn Ridge Trail and Sudley Road. Establish new vegetation following guidelines for vegetation modification in Chapter 6 (phase 2).

Task 26. Rehabilitate broad view from Chinn Ridge to Bald Hill (View C) by removing trees on the east side of Chinn Branch. Establish new vegetation following guidelines for vegetation modification in Chapter 6 (phase 2).

Task 27. Rehabilitate broad views between the Stone House site and Chinn Ridge as well as between Buck Hill and Chinn Ridge (View D) by removing and/or selectively thinning trees that block the view. Establish new vegetation following guidelines for vegetation modification in Chapter 6 (phase 2).

Task 28. If the Webster Monument parcel is acquired by NPS, rehabilitate broad views along Chinn Ridge by removing trees near the Fletcher Webster Monument and along the edge of the woods on the northwest side of the Chinn Ridge Trail (View A). Establish new vegetation following guidelines for vegetation modification in Chapter 6 (phase 2).

Task 29. Rehabilitate broad views between Chinn Ridge and 5th New York and 10th New York Monuments (View F) by removing and/or selectively thinning trees that block the view. Establish new vegetation following guidelines for vegetation modification in Chapter 6 (phase 2).

ARCHEOLOGICAL SITES, STUDY AREA

Task 30. Conduct a Phase 1 Archeological Survey in advance of any ground-disturbing activities. (Task 0.1 in *FFF CLR*). See Chapter 4 for further guidance related to Archeological Resources.

Task 31. Conduct metal detecting surveys and pedestrian reconnaissance surveys to identify possible troop movements, such as attack/retreat routes, firing lines, and possible artillery locations.

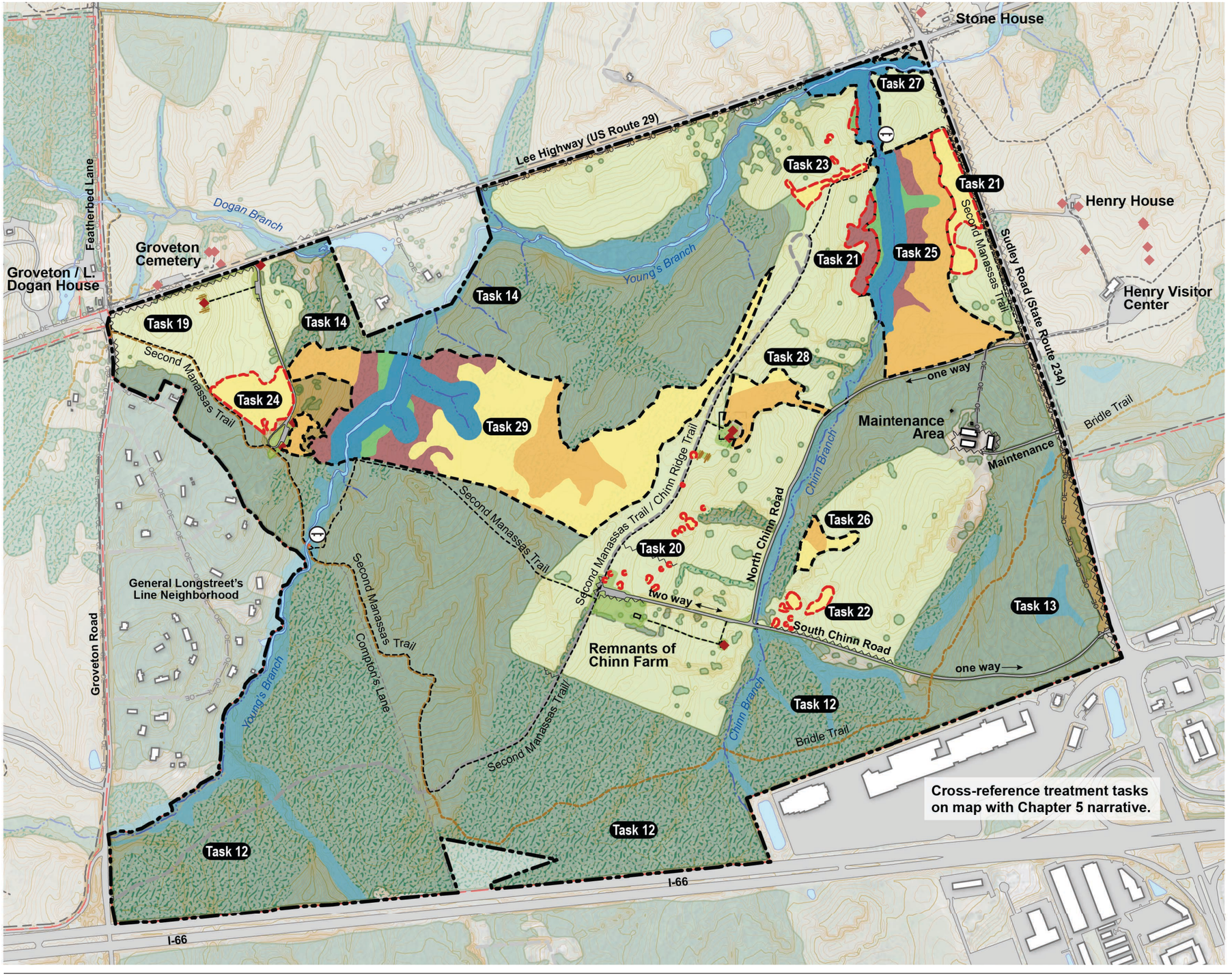
Task 32. Consult with an Archeologist at least 120 days before any proposed ground disturbance (Task 12 in *FFF CLR*).

VISITOR EXPERIENCE, STUDY AREA

The cultural landscape includes places that are directly associated with specific narratives related to the historic activities that occurred within the study area. The treatment plan recommendations improve the ability of these locations to connect visitors to the stories of the battles, pre-Civil War conditions, and period of commemoration. These locations correlate to key views within the study area and are places people can stand within and experience a feeling of being surrounded by, and connected to, the landscape. This provides authentic tactile links to stories. Treatment recommendations for Circulation (Task 7), Views and Vegetation (Tasks 12 through 29), address changes that support improving visitor experience in these locations.

Task 33. As part of the comprehensive park-wide Interpretive Plan, consider evaluating the locations and content of interpretive materials as landscape treatment is undertaken to ensure that waysides/markers are placed in appropriate locations.

Task 34. Consider adding benches near interpretive materials along barrier-free circulation routes. Proposed bench locations are listed in the New York Monuments Area and Chinn Farm Area treatment tasks in the following sections. Consider using rustic wood benches consistent with park standards that do not require surface disturbance for installation.



Chinn Ridge Cultural Landscape Report
Manassas National Battlefield Park

Study Area
Views and Vegetation Treatment

Legend

- Phase 1 view rehabilitation
- Phase 2 view rehabilitation
- Estimated location of Type A: Native Grassland/Meadow for Hay Lease (Annual Mowing)
- Estimated location of Type B: Native Grassland/Meadow for Open Viewshed and Habitat Management (Biennial Mowing)
- Estimated location of Type C: Successional Shrub Land (Triennial Mowing)
- Estimated location of Type D: Riparian Buffer Managed for View Corridors (100'-300')
- Estimated location of Type E: Floodplain Forest Preservation Zone (100' min.)
- Maintain existing oak-hickory forest **Task 17**
- Maintain existing successional forest **Task 17**
- Maintain existing floodplain forest **Task 16**
- Maintain existing native grassland/meadow for open viewshed and habitat management **Task 15**
- Maintain existing native grassland/meadow for hay lease **Task 15**
- Maintain existing mown lawn

Notes

1. MNBP GIS Data Archives: 2017 park boundaries, streams, ponds, trails (updated), roads (updated), buildings, structures, signs and waysides (updated), cannons, vegetation
2. Field investigations, Quinn Evans Architects, October 2017: structures, fences.
3. The areas identified for vegetation modification are general and not intended to indicate complete conversion of vegetative communities. Chapter 6 provides a stepped process to guide conversion of plant communities.

0 400 800 1,600 Feet

1 in = 800 ft

N

NPS No. MANA 379 137862 | **RT-1**

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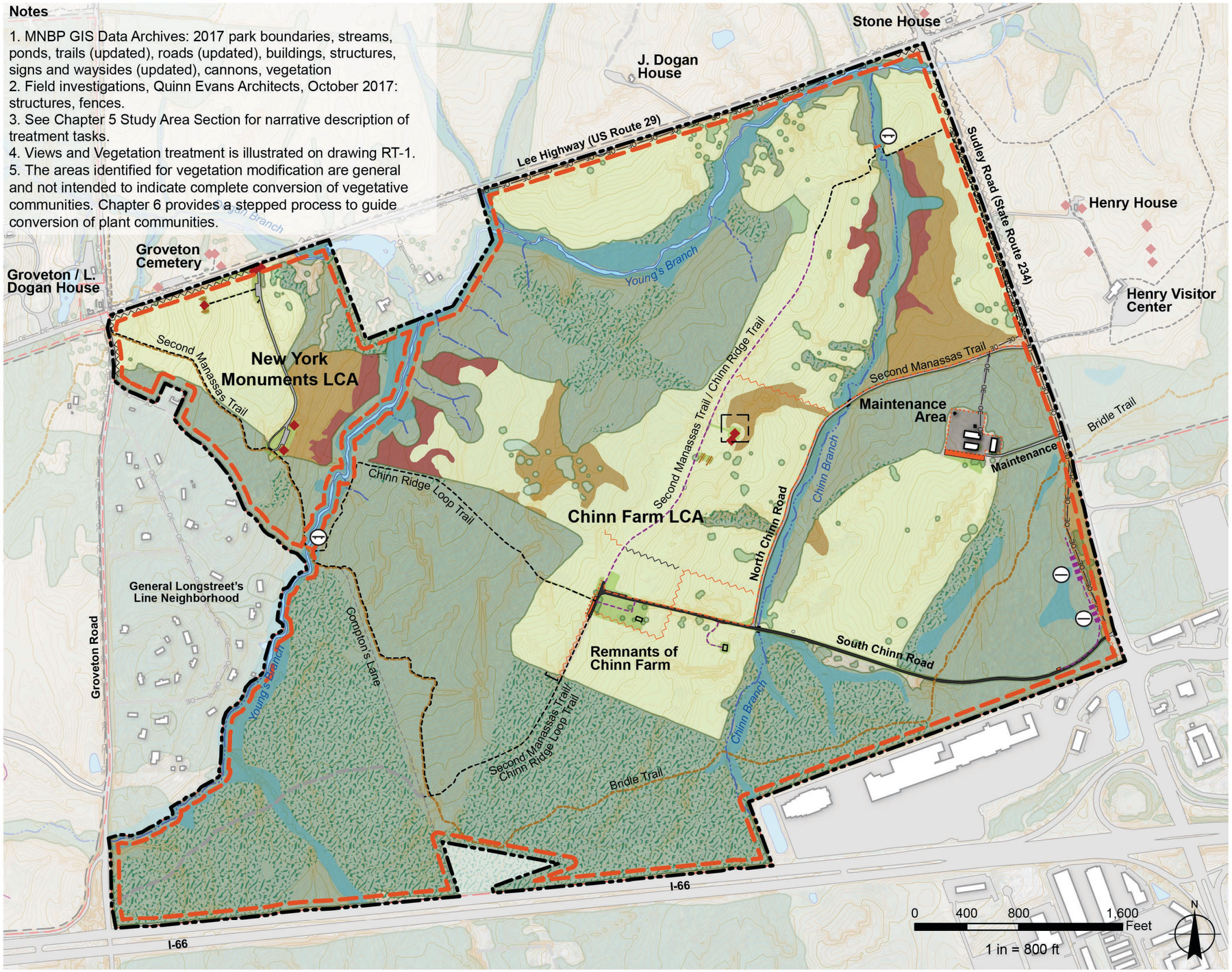
Notes

1. MNBP GIS Data Archives: 2017 park boundaries, streams, ponds, trails (updated), roads (updated), buildings, structures, signs and waysides (updated), cannons, vegetation
2. Field investigations, Quinn Evans Architects, October 2017: structures, fences.
3. See Chapter 5 Study Area Section for narrative description of treatment tasks.
4. Views and Vegetation treatment is illustrated on drawing RT-1.
5. The areas identified for vegetation modification are general and not intended to indicate complete conversion of vegetative communities. Chapter 6 provides a stepped process to guide conversion of plant communities.



Chinn Ridge Cultural Landscape Report
Manassas National Battlefield Park

Study Area Implemented Treatment

Legend

- Chinn Ridge CLR Study Area
- Landscape Character Area Boundary
- Preserve existing monument
- Maintain interpretive cannon
- Maintain building or structure
- Maintain asphalt road or parking area
- Add chip and seal asphalt surface to route
- Add asphalt parking area
- Maintain gravel road
- Maintain hiking trail
- Add hiking trail
- Add or repair barrier-free walkway
- Maintain bridle trail
- Maintain road trace
- Maintain trail bridge
- Add puncheon or boardwalk as necessary
- Add worm fence
- Retain existing worm fence
- Add fence
- Approximate location to maintain oak-hickory forest
- Scattered woodland vegetation
- Approximate location to maintain successional forest
- Approximate location to maintain floodplain forest
- Approximate location to establish and/or maintain successional shrub land
- Approximate location to establish and/or maintain native grassland/meadow for open viewshed management
- Approximate location to establish/maintain native grassland/meadow for hay lease
- Maintain mown turf

NPS No. MANA 379 137862 | **RT-2**

QUINN EVANS ARCHITECTS

National Park Service
National Capital Region

NEW YORK MONUMENTS LANDSCAPE CHARACTER AREA TREATMENT RECOMMENDATIONS

The New York Monuments area is located at the northwest corner of the CLR study area, and includes 67 acres bounded by Youngs Branch to the south, Groveton Road and a section of private property to the west, Lee Highway to the north, and the McGlothlin property to the east. The area contains three monuments to the 5th New York Infantry, 10th New York Infantry, and 14th Brooklyn Infantry, as well as a memorial gate, hiking trails, and bridle trails. Treatment recommendations for the New York Monuments Landscape Character Area are illustrated on drawings RT-3 through RT-5 at the end of this chapter.

Circulation, New York Monuments LCA

Task 35. Maintain mown turf path between the parking area and the 14th Brooklyn Monument. Due to the steep slopes around the monument, creation of a universally accessible route would require extensive alteration of the scene, which is undesirable (see RT-4).

Task 36. Maintain concrete sidewalk at 5th and 10th New York Monuments as accessible walkway. Install detectable warnings at the ramp where the sidewalk meets the parking area (see RT-5).

Buildings, Structures, and Small Scale Features, New York Monuments LCA

Task 37. Preserve the 5th New York, 10th New York, and 14th Brooklyn Monuments. Clean and repair as needed (see RT-4 and RT-5).

Task 38. Relocate extant 5th New York Gate on east side of New York Avenue to location at least 20 feet from edge of roadway (see RT-4).

Task 39. Install missing 5th New York Gate on west side of New York Avenue across from relocated gate (see RT-4).

Task 40. Preserve ornamental iron fences at 5th New York, 10th New York, and 14th Brooklyn Monuments. Repair and paint as needed (see RT-4 and RT-5).

Task 41. Maintain interpretive cannon adjacent to 14th Brooklyn Monument (see RT-4).

Task 42. Remove the worm fence at 14th Brooklyn parking area and replace with single-rail NPS pierced-post fence (*FFF CLR* Task 11) (see RT-4).

Task 43. Maintain existing wood access gate at the 14th Brooklyn parking area (see RT-4).

Task 44. Install a sign for the New York Monuments area along Lee Highway (see RT-4).

VISITOR EXPERIENCE, NEW YORK MONUMENTS LCA

Task 45. Continue to provide interpretive materials at key locations within the study area (see RT-4 and RT-5).

- Wayside interpreting battle movements associated with Second Manassas at Groveton near 14th Brooklyn Monument.
- Wayside interpreting Second Manassas Confederate counterattack near 5th and 10th New York Monuments.
- Wayside interpreting actions of 5th and 10th New York Regiments during Second Manassas near the monuments.

Task 46. Add a trail bench along the sidewalk near the 5th and 10th New York Monuments (see RT-5).

CHINN FARM LANDSCAPE CHARACTER AREA TREATMENT RECOMMENDATIONS

The Chinn Farm landscape character area occupies two parallel ridges running approximately northeast-southwest, Chinn Ridge to the north and another rise sometimes referred to as Bald Hill to the south (see Figure 3-2). The tops of both ridges are characterized by broad, open fields surrounded by dense woods. These two spaces are separated by a valley cloaked in woody vegetation associated with Chinn Branch. Within the boundaries of this landscape character area are remnants of the Chinn Farm, the park maintenance facilities, hiking trails, and bridle trails.

Treatment recommendations for the Chinn Farm LCA are presented as they relate to visitor experience and landscape characteristics including Land Use, Circulation, Buildings, Structures, and Small-scale Features, Constructed Water Features, Vegetation, Archeological Sites, and Visitor Experience. Treatment recommendations for the Chinn Farm Landscape Character Area are illustrated on drawings RT-6 through RT-8 at the end of this chapter.

LAND USE, CHINN FARM LCA

Task 47. Continue to maintain the one-acre Fletcher Webster inholding and preserve the Fletcher Webster Monument and Texas Monument (see RT-6).

Task 48. Modify the maintenance facility to define the extent of maintenance storage areas and maintain in its existing location (see RT-6 and RT-8).

Task 49. Add an interpretive node along the Sudley Road grade to interpret the final Union position at Second Manassas. Refer to Tasks 60, 61, 62, 76, 80, 95, and 96 for Circulation, Small-scale Features, and Visitor Experience recommendations to support the interpretive node (see RT-8).

Circulation, Chinn Farm LCA

Task 50. Evalute reestablishing a vehicular route along CCC-era Chinn Ridge Trail through a formal public review process. Prior to the final determination of the public review process, repair and maintain the existing pedestrian walkway (RT-7).

- Repair the asphalt surface of the existing walkway to provide a barrier-free route. Replace exisitng materials with 5' wide driveable asphalt pavement centered on the original road alignment.
- Remove the adjacent gravel shoulder. Prepare a soil base and establish turf along the edge of the walkway.

Task 51. Rehabilitate paving on historic circulation routes in selected areas to provide visual cues that help visitors identify historic road locations. Replace surface of circulation routes in location of historic farm roads with contrasting pavement that has a color and/or texture that is differentiated from the other roads and trails in the study area.

- Undertake surface replacement along South Chinn Drive and the portion of the road extending along the new parking area to the west (see drawings RT-6 and RT-7).
- To create this distinction, consider using a chip and seal asphalt pavement with a brownish-red aggregate or rustic pavement that emulates the color of the soil in the area. Pavement types are described in Chapter 6.

Task 52. Maintain asphalt surfaces on paved routes that are not associated with historic farm routes, including North Chinn Drive and the maintenance road (see RT-6, RT-7, and RT-8).

Task 53. Add a designated walking surface for pedestrians on the shoulder of North Chinn Drive by painting a 5-foot wide lane on the right (northeast) side of the road (see RT-6, RT-7, and RT-8).

Task 54. Maintain the western segment of the Second Manassas hiking trail and bridle trail in its existing non-contributing location adjacent to Compton's Lane (see RT-6).

Task 55. Construct a new asphalt parking area for 15 standard parking spaces and two barrier-free spaces to the west of the Chinn Farm core. Remove the existing parking on the south side of the road, and retain parking for three buses in the existing location of bus parking along South Chinn Drive (see RT-7).

Task 56. Construct a new barrier-free route from the relocated Chinn Farm parking area to the wayside that interprets the Chinn House foundation (see RT-7).

Task 57. Construct a new accessible route to Hooe Cemetery. Use a crushed fines of stone surface for the route, following the existing grade to remain below 4% slope. Add a new asphalt pullout to the west of the existing pullout. Remove existing asphalt pullout and repair ground surface (see RT-7).

Task 58. Add gravel parking area for 12 cars along the south side of the maintenance fence (see RT-8).

Task 59. Remove the existing gravel road and informal parking area extending south from the maintenance area. Repair ground surface to vegetation matching the adjacent area (see RT-8).

Task 60. Remove the vehicular pull-out and wayside at the edge of North Chinn Drive (see RT-8).

Task 61. Add a universally accessible trail from the new parking area to the Sudley Road grade at a location where the road cut is clearly visible. For the new trail, follow best management practices for trails presented in Chapter 6 to provide a level walking surface. For the portion of trail that follows along South Chinn Drive, provide a designated walking surface for pedestrians on the shoulder of the road by painting a 5-foot wide lane on the left (northeast) side of the road (see RT-6 and RT-8).

Task 62. Add asphalt parking area with two standard and one universally accessible parking space at South Chinn Drive to serve the new trail to the Sudley Road grade (see RT-6 and RT-8).

Task 63. Remove the informal route from maintenance area across Bald Hill. Discontinue use of the route and repair the ground surface to reestablish native grassland vegetation (see RT-8).

BUILDINGS, STRUCTURES, AND SMALL-SCALE FEATURES, CHINN FARM LCA

Buildings and Structures

Task 64. Preserve the Chinn House foundation in place. Consider constructing a three dimensional representation of the missing structure (refer to Recommendations for Future Research at the end of this chapter). Repair stonework following masonry best management practices outlined in Chapter 6 (see RT-7).

Task 65. Preserve the reconstructed Hooe Cemetery wall. Repair stonework following masonry best management practices outlined in Chapter 6 (see RT-7).

Task 66. Preserve the RDA Maintenance Storage Building and continue to use the building to support facilities operations (see RT-8).

Task 67. Maintain non-contributing maintenance buildings and continue to use the buildings to support facilities operations (see RT-8).

Monuments

Task 68. Preserve Colonel Fletcher Webster Monument (see RT-6).

Task 69. If Fletcher Webster Monument parcel is acquired by NPS, continue to maintain Texas Monument in existing location (see RT-6).

Task 70. Maintain interpretive cannon on Chinn Ridge (see RT-6).

Task 71. Maintain Bernard Hooe cemetery marker (see RT-7).

Fences

Task 72. Remove selected fencerow vegetation and replace with fences in the location of historic fences at the Chinn Farm (see RT-7).

- Conduct a detailed survey of existing vegetation to identify specimen trees to be maintained along the fenceline. Specimen trees may include legacy trees, large mature trees, trees that indicate domestic use (such as fruit trees), or trees with significant ecological value (such as large oaks). Evaluate the value of the fencerow in providing a windbreak and soil erosion control.
- Conduct archeological reconnaissance to identify sensitive sites to preserve and types of historic fences, if present.
- Flush cut woody materials to be removed, and treat stumps to prevent resprouting. Remove all invasive exotic species.
- If archeological investigation reveals historic fence types, rehabilitate fence to be representative of the historic type. Where historic fence type is not known, construct worm fence in location of historic fence (*FFF CLR* Task 10).

Task 73. Maintain fencerow to the west of Chinn Farm only where vegetation screens the parking area (see RT-7).

Task 74. Maintain and preserve post and board fence located to the west of the Chinn Farm core (see RT-7).

Task 75. Add worm fence to extend existing worm fence line westward on opposite side of Second Manassas Trail/Chinn Ridge Trail (*FFF CLR* Task 19.0) (see RT-7).

Task 76. Remove noncontributing worm fence along existing Sudley Road alignment (*FFF CLR* Task 18.2) (see RT-8). Consider replacing with a single-rail pierced post fence or guardrail compatible with historic character of the landscape.

Task 77. Add a new worm fence along the historic Sudley Road alignment (*FFF CLR* Task 18.2) (see RT-6 and RT-8).

Task 78. Add new worm fence along historic fenceline northeast of the Fletcher Webster Monument (*FFF CLR* Task 19.1) (see RT-6).

Task 79. Remove two segments of noncontributing worm fence along South Chinn Drive (*FFF CLR* Task 18.0) (see RT-6).

Task 80. Remove noncontributing worm fence at Chinn Farm parking area (*FFF CLR* Task 18.1) (see RT-7).

Task 81. Add single-rail pierced post fence around new parking area at Chinn Farm (see RT-7).

Task 82. Define the extent of maintenance area by expanding fenced area and relocating stockpiled materials to within fence (see RT-8).

- Relocate and expand the chain-link fence surrounding the maintenance area to encompass existing buildings.
- Relocate maintenance materials and equipment from outside the fenced area to within the new fence. Repair ground surface of area outside of fence to match adjacent vegetation.

- Develop policy to maintain materials and equipment within the fenced area. Do not allow maintenance storage to expand outside of fenced area.

Task 83. Add gate at utility corridor extending south from North Chinn Drive to maintenance area to prevent unofficial vehicular access (see RT-8). If NPS needs a maintanance ciruclation route in this location, conduct a fromal planning process and adhere to NEPA requirements.

Task 84. Maintain existing wood gates at North Chinn Road, Maintenance Access Road, and South Chinn Road (see RT-6 and RT-8).

Task 85. Install a sign for the Chinn Ridge area along Sudley Road (see RT-8).

CONSTRUCTED WATER FEATURES, CHINN FARM LCA

Task 86. Preserve contributing Chinn Cistern and Well, Chinn Spring Housing, Stone Culvert on North Chinn Drive, and Stone Culvert on South Chinn Drive. Stabilize as needed and maintain in situ. Refer to best management practices for historic masonry in Chapter 6 (see RT-7 and RT-8).

Task 87. Follow recommendations in Archeological Features - Chinn Farm section for historic check dams (see RT-7).

VEGETATION, CHINN FARM LCA

Task 88. Preserve six (6) contributing legacy trees at Chinn Farm. When the trees die or become hazardous, replace in kind in same location (see RT-7).

ARCHEOLOGICAL SITES, CHINN FARM LCA

Task 89. Investigate selected potential archeological sites as indicated on RT-7 in locations where woody vegetation may be marking sites of historic buildings or features. Following archeological investigations, remove groupings of woody vegetation that do not mark sites. Prior to removal, confirm that woody vegetation does not include legacy vegetation or orchard remnants.

Task 90. For outbuildings and check dams that are marked by groupings of woody vegetation, maintain vegetation at ruins as marker, or follow archeologist's recommendations to preserve the feature in situ (see RT-7).

Task 91. For outbuildings with no surface features that are not marked by groupings of woody vegetation, consider providing a ground-level outline of the building foundation to mark its location in the landscape (see RT-7).

VISITOR EXPERIENCE, CHINN FARM LCA

Task 92. Continue to provide interpretive materials at key locations within the study area (see RT-6 and RT-7).

- Wayside interpreting battle movements associated with First Manassas at viewpoint facing Henry Hill.
- Wayside interpreting Col. Fletcher Webster near Fletcher Webster Monument.

- Wayside interpreting Union Artillery on Chinn Ridge at Second Manassas near interpretive cannon.
- Wayside interpreting Confederate advance on Chinn Ridge.

Task 93. Continue to provide materials interpreting Chinn House Founation. If necessary, move interpretive materials to location accessible from barrier-free route while maintaining a similar angle to the comparison view in the photo on the wayside (see RT-7).

Task 94. Consider adding interpretive materials related to Second Manassas at viewpoint facing Stone House intersection/Buck Hill (see RT-6).

Task 95. Consider adding interpretive materials related to Second Manassas along Second Manassas Trail near Sudley Road (see RT-6).

Task 96. Add interpretive materials near the Sudley Road grade interpreting final Union position at Second Manassas (see RT-8).

Task 97. Add trail benches near interpretive materials (see RT-6, RT-7, and RT-8).

- Add trail bench near wayside facing Henry Hill on Chinn Ridge.
- Add trail bench near Fletcher Webster Monument.
- Add trail bench near Chinn House Foundation. Locate on a barrier-free route based on selected treatment alternative.
- Add trail bench near Sudley Road grade wayside.

RECOMMENDATIONS FOR FUTURE RESEARCH

The CLR contributes to the growing body of research on Chinn Ridge by focusing on the evolution of the cultural landscape. Recommendations for future research and planning efforts that arise from the CLR process are provided in this section.

- Conduct Phase 1 archeological investigations within the Chinn Farm core to determine the presence and condition of at-grade or below-grade features associated with the Hooe Plantation/Chinn Farm.
- Conduct investigations of resources associated with Indigenous occupation of the study area as well as the entire battlefield park. Consult with formal representatives of American Indian tribes and nations to determine culturally significant and/or sensitive sites and provide guidance for protection and possible interpretation of these areas.
- Consider conducting a park-wide study of cemeteries, grave sites, and disinterred graves to develop a cemetery management plan for the entire Manassas National Battlefield Park.
- Consider establishing a management plan for areas that were historically managed as woodlots. Determine the feasibility of leasing woodlots for timber or grazing.
- Conduct detailed field evaluation and ecological studies to define historic woodlands and avoid removal of more forest than necessary to rehabilitate the cultural landscape.

- Consider conducting an overall study of vehicular circulation and universal access throughout Manassas National Battlefield Park. As part of this study, evaluate reestablishing a vehicular route on Chinn Ridge through a public review process.
- Conduct further studies to determine if it is appropriate and feasible to construct a three dimensional representation of the Chinn House. Examples of three-dimensional representation are provided in Figure 5-8 through Figure 5-11.
- Conduct archeological investigations in the Chinn Ridge area as part of the upcoming 3-year Archeological Overview and Assessment and Identification and Evaluation Survey (OA & IE) of the park, scheduled to start in 2018 by the archeological contractor (Louis Berger).
- If an alternate location for the maintenance facility that is outside of the historic landscape becomes available, consider undertaking a planning process to determine if it is appropriate to relocate the facility or a portion of the facility.

Figure 5-8. Consider representing missing Chinn House chimneys.

Figure 5-9. Example of ghosted building at St. Marys City, Maryland (Margaret Yocom, 2013).

Figure 5-10. Example of platform and roof "ghost" structure representing form of missing building at Blue Heron Mining Community (here4now.typepad.com)

Figure 5-11. Example of building fragments used to support new structure in historic location at Women's Rights National Historic Park and Visitor Center (Elemental NYC).

ENDNOTES

1 National Park Service, *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscape*s, United States Department of the Interior, https://www.nps.gov/tps/standards/four-treatments/landscape-guidelines; and NPS DO 28, 1997.

2 Virginia Stream Management and Technical Design Workgroup, "The Virginia Stream Restoration & Stabilization Best Management Practices Guide,"(Virginia Department of Conservation and Recreation, Division of Soil and Water Conservation, 2004).

3 Virginia Stream Management and Technical Design Workgroup, "The Virginia Stream Restoration & Stabilization Best Management Practices Guide,"(Virginia Department of Conservation and Recreation, Division of Soil and Water Conservation, 2004).

4 This view analysis is consistent with the methodology applied in the Walker Collaborative, History Associates, Inc., and Land Planning & Design Associates, *Manassas Battlefields Viewsheds Plan*, ABPP Grant No. GA-2255-06-007; Prince William County Contract No. 71312NO0 (Prince William County, Virginia, 2010). See Chapter 3 for analysis of views within the study area.

5 National Park Service Geologic Resources Division, *Manassas National Battlefield Park Geologic Resource Evaluation Report*, 6

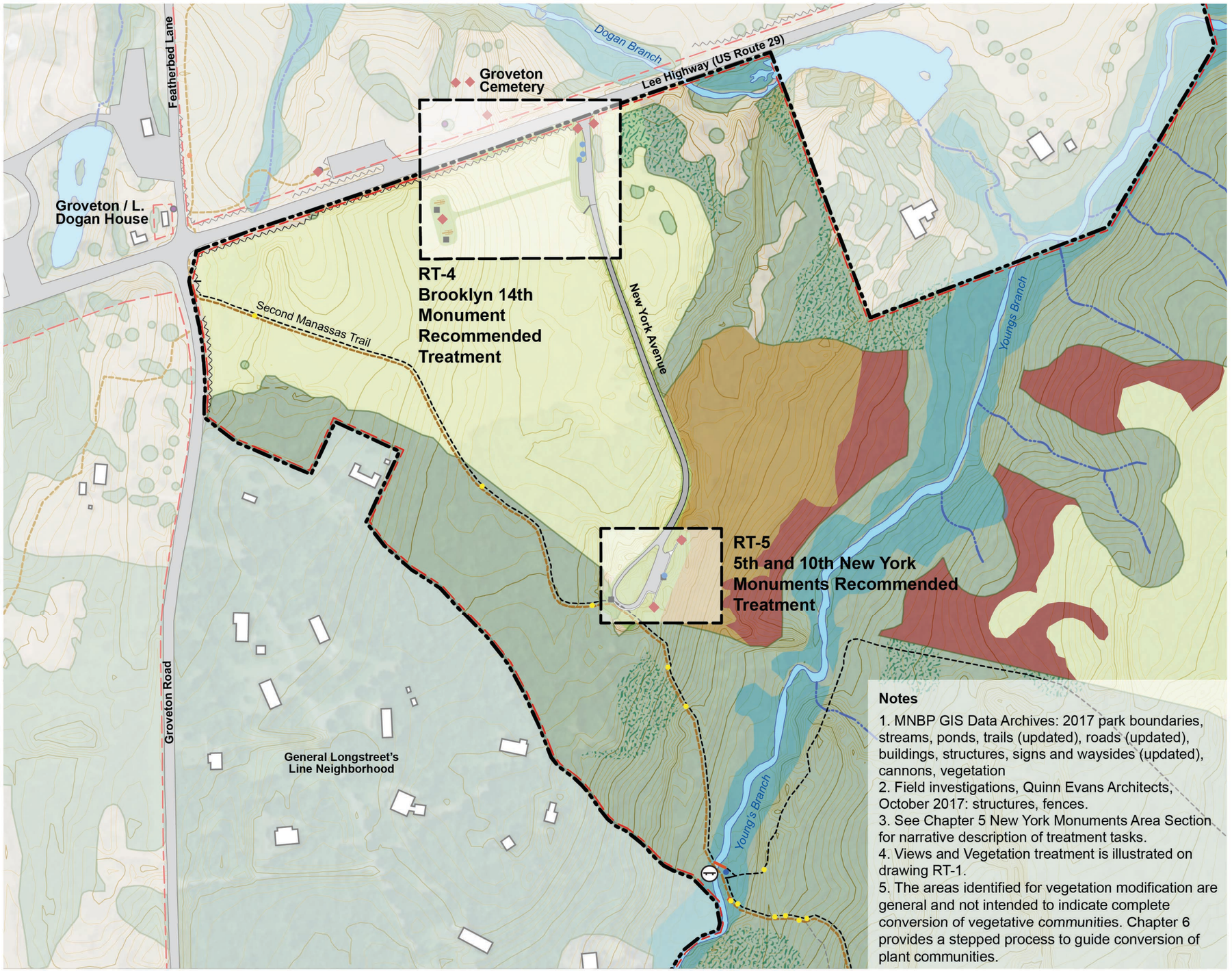
6 Soil Conservation Service, "Soil Survey of Prince William County," (USDA, Soil Conservation Service, 1989), 17-18.

7 Virginia Department of Forestry, *Virginia's Forest Best Management Practices for Water Quality Field Guide* (2009), 11-15.

8 Deed, January 17, 1963, by and between William W. Lawrence and wife, Oneida H. Lawrence, Grantors, and the United States of America, in file Monuments and Markers N.Y. Monuments and Land Acquisition, Historian's Files, MNBP.

9 Deed, January 17, 1963, by and between William W. Lawrence and wife, Oneida H. Lawrence, Grantors, and the United States of America, in file Monuments and Markers N.Y. Monuments and Land Acquisition, Historian's Files, MNBP.

New York Monuments Area Recommended Treatment



Legend

- Chinn Ridge CLR Study Area
- MNBP 2017 Boundary
- Preserve existing monument
- Maintain interpretive cannon
- Maintain asphalt road or parking area
- Maintain hiking trail
- Add hiking trail
- Maintain trail culvert
- Maintain bridle trail
- Maintain trail bridge
- Maintain existing worm fence
- Approximate location to establish and/or maintain oak-hickory forest (may include selective clearing for views)
- Approximate location to establish and/or maintain successional forest
- Approximate location to maintain floodplain forest
- Approximate location to establish and/or maintain shrubland
- Approximate location to establish and/or maintain native grassland or meadow
- Approximate location to establish and/or maintain hayfield
- Maintain mown turf

Notes

1. MNBP GIS Data Archives: 2017 park boundaries, streams, ponds, trails (updated), roads (updated), buildings, structures, signs and waysides (updated), cannons, vegetation
2. Field investigations, Quinn Evans Architects, October 2017: structures, fences.
3. See Chapter 5 New York Monuments Area Section for narrative description of treatment tasks.
4. Views and Vegetation treatment is illustrated on drawing RT-1.
5. The areas identified for vegetation modification are general and not intended to indicate complete conversion of vegetative communities. Chapter 6 provides a stepped process to guide conversion of plant communities.

0 150 300 600 Feet

1 in = 300 ft

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NPS No. MANA 379 137862 | **RT-3**

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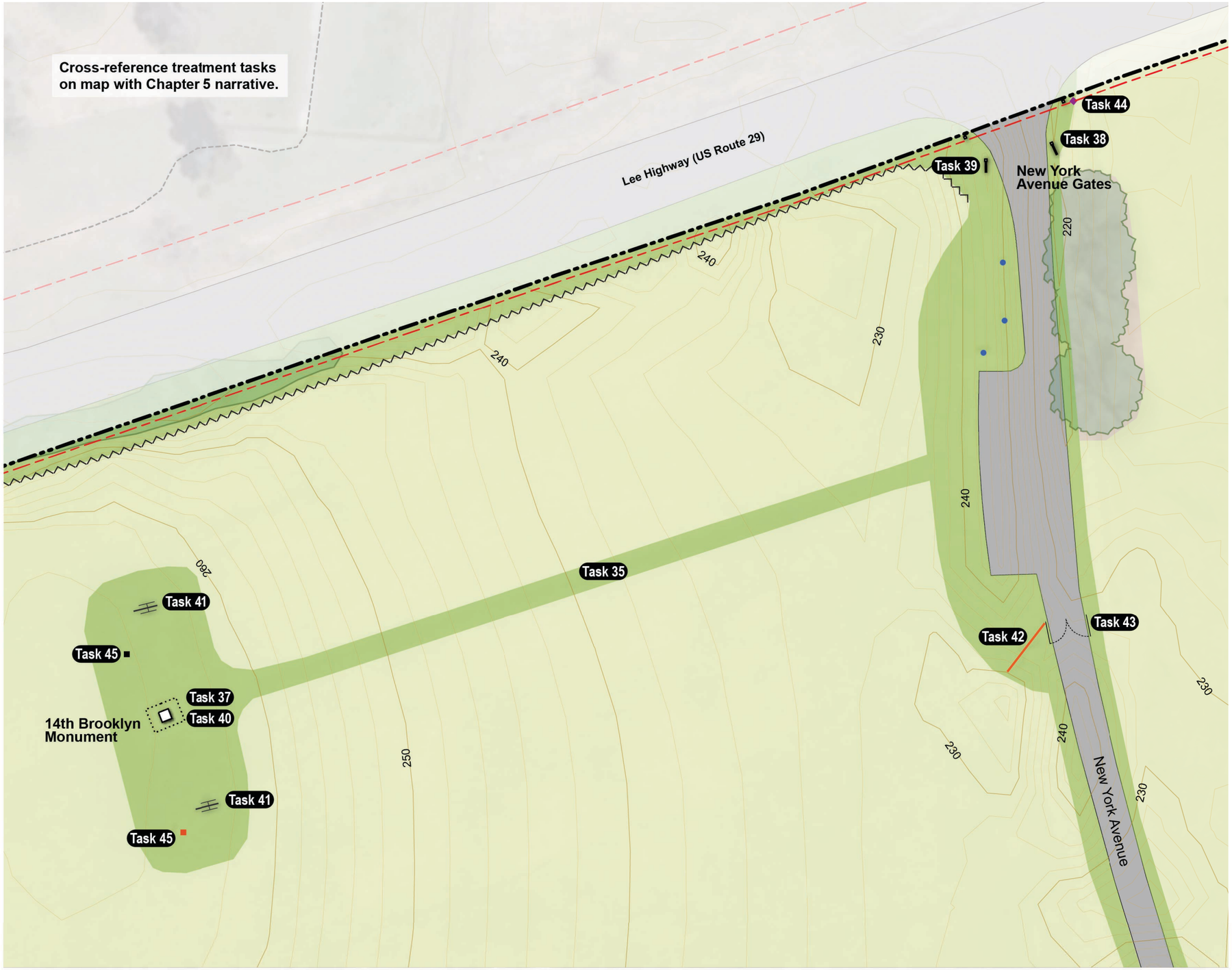
14th Brooklyn Monument Recommended Treatment



Legend

- Chinn Ridge CLR Study Area
- MNBP 2017 Boundary
- Preserve existing monument
- Maintain interpretive cannon
- Maintain asphalt road or parking area
- Retain oak-hickory forest or individual tree
- Maintain mown lawn
- Maintain hayfield
- Maintain existing worm fence
- Remove worm fence and replace with single rail pierced post fence
- Preserve decorative iron fence
- Maintain wayside
- Maintain historic marker
- Maintain other sign
- Add sign

Notes and Sources

1. MNBP GIS Data Archives: 2017 park boundaries, streams, ponds, trails (updated), roads (updated), buildings, structures, signs and waysides (updated), cannons, vegetation
2. Field investigations, Quinn Evans Architects, October 2017: structures, fences.
3. See Chapter 5, New York Monuments Area Section for narrative description of treatment tasks.
4. The areas identified for vegetation modification are general and not intended to indicate complete conversion of vegetative communities. Chapter 6 provides a stepped process to guide conversion of plant communities.

0 25 50 100 Feet

1 in =50 ft

N

NPS No. MANA 379 137862 | **RT-4**

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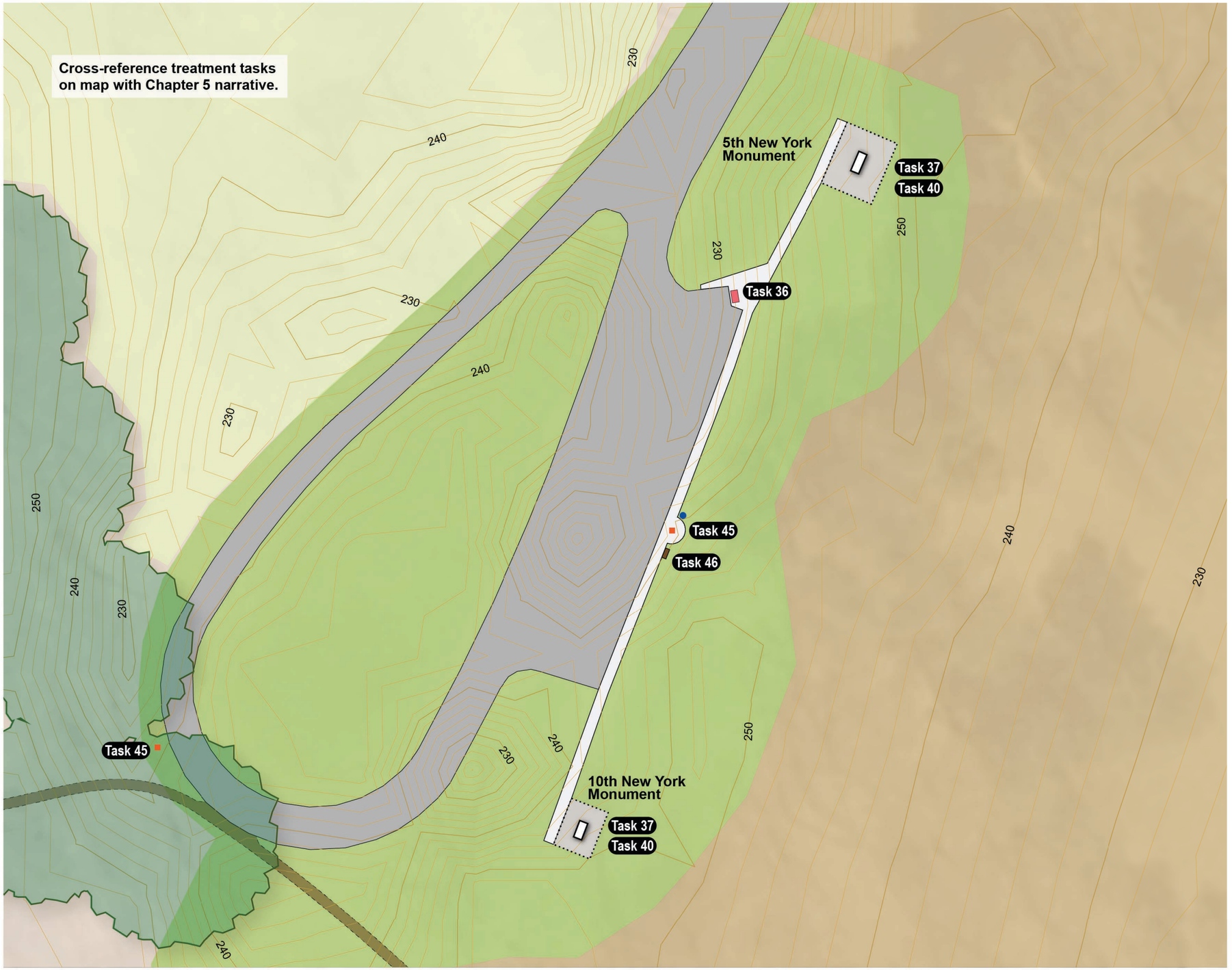

5th and 10th New York Monuments Recommended Treatment

Legend

- Preserve existing monument
- Maintain asphalt road or parking area
- Maintain existing sidewalk
- Maintain existing bare earth trail
- Maintain existing gravel paving
- Maintain oak-hickory forest or individual tree
- Maintain mown turf
- Approximate location to establish and/or maintain native grassland or meadow
- Approximate location to establish and/or maintain hayfield
- Preserve decorative iron fence
- Maintain wayside
- Maintain other sign
- Add trail bench

Notes

1. MNBP GIS Data Archives: 2017 park boundaries, streams, ponds, trails (updated), roads (updated), buildings, structures, signs and waysides (updated), cannons, vegetation
2. Field investigations, Quinn Evans Architects, October 2017: structures, fences.
3. See Chapter 5 Study Area Section for narrative description of treatment tasks.
4. Views and Vegetation treatment is illustrated on drawing RT-1.

0 15 30 60 Feet

1 in = 30 ft

N

NPS No. MANA 379 137862 | **RT-5**

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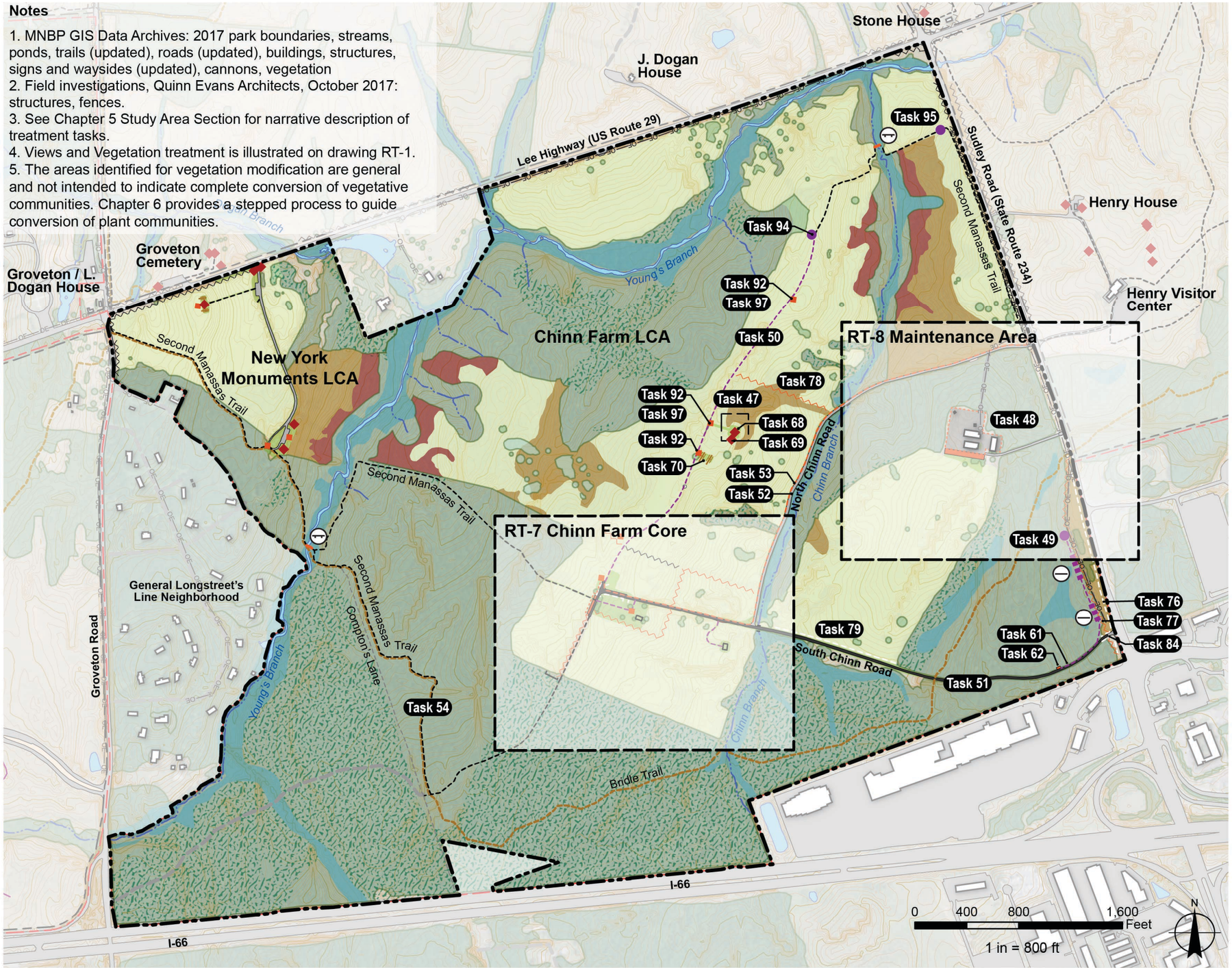
Notes

1. MNBP GIS Data Archives: 2017 park boundaries, streams, ponds, trails (updated), roads (updated), buildings, structures, signs and waysides (updated), cannons, vegetation
2. Field investigations, Quinn Evans Architects, October 2017: structures, fences.
3. See Chapter 5 Study Area Section for narrative description of treatment tasks.
4. Views and Vegetation treatment is illustrated on drawing RT-1.
5. The areas identified for vegetation modification are general and not intended to indicate complete conversion of vegetative communities. Chapter 6 provides a stepped process to guide conversion of plant communities.



Chinn Farm LCA
Overall Recommended Treatment

Legend

- Chinn Ridge CLR Study Area
- Preserve existing monument
- Maintain interpretive cannon
- Maintain building or structure
- Maintain asphalt road or parking area
- Add chip and seal asphalt surface to route
- Add asphalt parking area
- Maintain gravel road
- Maintain hiking trail
- Add hiking trail
- Add or repair barrier-free walkway
- Maintain bridle trail
- Maintain road trace
- Maintain trail bridge
- Add puncheon or boardwalk as necessary
- Add worm fence
- Retain existing worm fence
- Remove fence
- Maintain wayside
- Add interpretive materials
- Approximate location to maintain oak-hickory forest
- Approximate location to maintain successional forest
- Approximate location to maintain floodplain forest
- Approximate location to establish and/or maintain successional shrub land
- Approximate location to establish and/or maintain native grassland/meadow for open viewshed management
- Approximate location to establish/maintain native grassland/meadow for hay lease
- Maintain mown turf

NPS No. MANA 379 137862 | **RT-6**

QUINN EVANS ARCHITECTS

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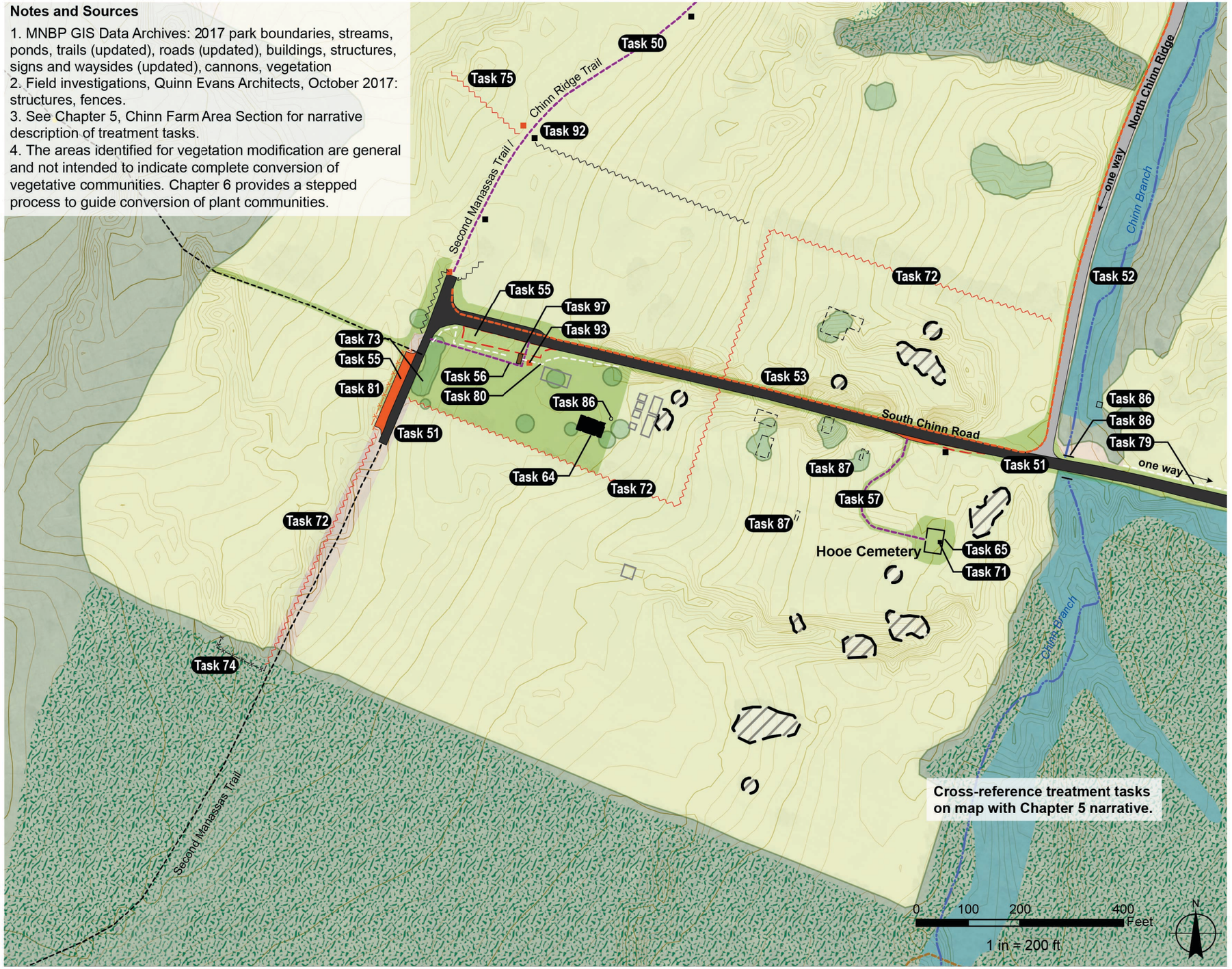
Chinn Farm Core
Recommended Treatment

Notes and Sources

1. MNBP GIS Data Archives: 2017 park boundaries, streams, ponds, trails (updated), roads (updated), buildings, structures, signs and waysides (updated), cannons, vegetation
2. Field investigations, Quinn Evans Architects, October 2017: structures, fences.
3. See Chapter 5, Chinn Farm Area Section for narrative description of treatment tasks.
4. The areas identified for vegetation modification are general and not intended to indicate complete conversion of vegetative communities. Chapter 6 provides a stepped process to guide conversion of plant communities.



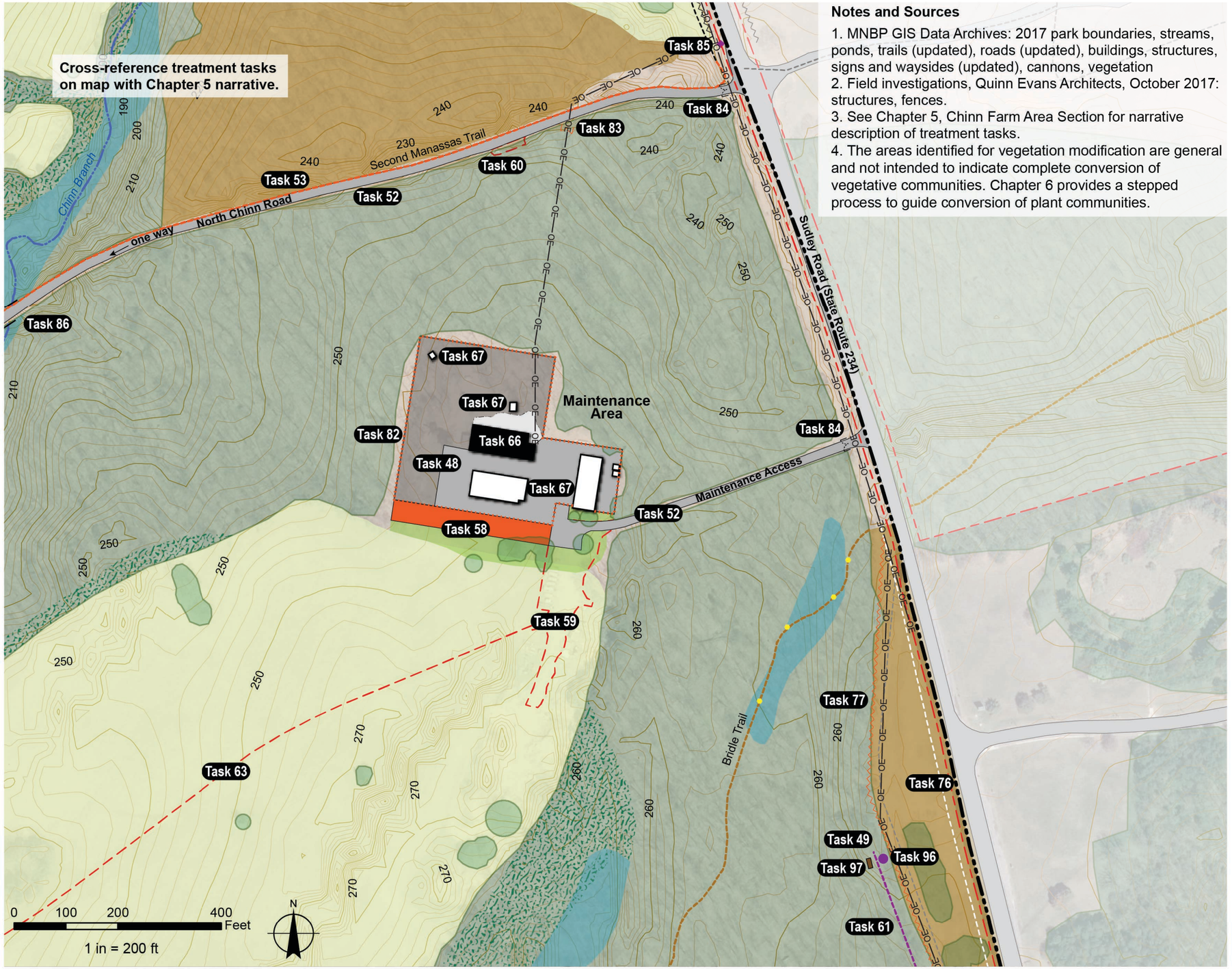
Legend

- Preserve contributing structure
- Preserve Chinn House Foundation
- Maintain asphalt road or parking area
- Add chip and seal asphalt surface to route
- Add asphalt parking area
- Maintain hiking trail
- Add hiking trail
- Add/repair barrier-free walkway
- Remove circulation route/parking
- Add worm fence
- Remove worm fence
- Maintain existing worm fence
- Maintain post-and-board fence
- Add single-rail pierced-post fence
- Add trail bench Task 97
- Maintain wayside Task 92
- Maintain troop position marker Task 92
- Maintain existing oak-hickory forest
- Maintain existing successional forest
- Maintain existing floodplain forest
- Approximate location to establish and/or maintain native grassland/meadow for open viewshed and habitat management
- Approximate location to establish/maintain native grassland/meadow for hay lease
- Maintain mown turf
- Preserve contributing legacy vegetation. Task 88
- Remove groupings of woody vegetation that do not mark sites. Task 89
- Maintain vegetation at ruins as marker. Task 90
- Consider providing a ground-level outline of missing building foundation. Task 91

NPS No. MANA 379 137862 | **RT-7**

QUINN EVANS ARCHITECTS

National Park Service
National Capital Region



Notes and Sources

1. MNBP GIS Data Archives: 2017 park boundaries, streams, ponds, trails (updated), roads (updated), buildings, structures, signs and waysides (updated), cannons, vegetation
2. Field investigations, Quinn Evans Architects, October 2017: structures, fences.
3. See Chapter 5, Chinn Farm Area Section for narrative description of treatment tasks.
4. The areas identified for vegetation modification are general and not intended to indicate complete conversion of vegetative communities. Chapter 6 provides a stepped process to guide conversion of plant communities.

Chinn Ridge Cultural Landscape Report
Manassas National Battlefield Park

Maintenance Area Recommended Treatment

Legend

- Chinn Ridge CLR Study Area
- Preserve contributing building
- Maintain noncontributing building
- Maintain asphalt road or parking area
- Add asphalt parking area
- Maintain gravel road or paved area
- Add hiking trail
- Maintain hiking trail
- Add barrier-free circulation routes
- Maintain bridle trail
- Maintain road trace
- Remove circulation route / parking
- Add worm fence
- Remove worm fence
- Maintain existing worm fence
- Add/relocate chain link fence
- Add sign
- Add interpretive materials
- Add trail bench
- Maintain trail culvert
- Add wood gate
- Maintain wood gate
- Maintain overhead lines
- Maintain existing oak-hickory forest
- Maintain existing successional forest
- Maintain existing floodplain forest
- Approximate location to establish and/or maintain native grassland/meadow for open viewshed and habitat management
- Approximate location to establish/maintain native grassland/meadow for hay lease
- Maintain mown turf

NPS No. MANA 379 137862 | **RT-8**

QUINN EVANS ARCHITECTS

National Park Service
National Capital Region

Best Management Practices

Chapter 6

Chapter title page: 10th New York Monument, ca. 1960 (MANA Archives)

Chapter 6: Best Management Practices

This chapter includes best management practices for monitoring, maintaining, and repairing aspects of the project area landscape.

GENERAL BEST MANAGEMENT PRACTICES

- Prepare a routine maintenance and monitoring schedule that is realistic given staff levels and funding. Consider utilizing a standard monitoring approach using a form approved by resource managers and the regional archeologist.
- Don't start projects that cannot be finished or maintained long term. Be sure that the proposed change can be sustained in the long term within the human and financial capacity of the park.
- Minimize all actions that expose bare earth and create the potential for erosion within the study area. When repairs or maintenance activities are necessary, follow best management practices provided herein to minimize impacts. Ensure that surface repairs are carried out in a manner that does not compromise adjacent resources and are subtly distinguishable through archeological evidence.
- Archeological survey and environmental compliance shall be undertaken prior to any installation or construction activities.
- Prepare appropriate resource studies, species inventories, archeological surveys, field verification, and more detailed design analysis as necessary prior to implementing large-scale landscape changes.

Figure 6-1. Stone check dam (source: Fairfax County, VA).

EROSION CONTROL BEST MANAGEMENT PRACTICES

- All treatment actions shall meet Stormwater and Erosion Control compliance as per NPS Executive Order 13508 (Chesapeake Bay Protection and Restoration), Chesapeake Bay Protection Act, and Virginia Department of Environmental Quality standards for Stormwater and Erosion Control.

STEEP SLOPES

Monitor

- Carefully evaluate on-site conditions to determine appropriate vegetation strategy, and only clear woody vegetation in areas specified to rehabilitate views.
- Avoid vegetation clearing on steep slopes 25% or greater, and selectively clear vegetation on more shallow slopes as indicated in Vegetation Treatment Plan in Chapter 5.

Repair

- Revegetate bare steep slopes (greater than 25% grade) with appropriate native plant mix.
- Construct stone check dams as needed across swales, drainage ditches, or other locations where runoff channels as it flows off of ridges. Place check dams in a series along the gradient (see Figure 6-1).
- Stones used to construct check dams should be large enough that they will not be displaced by heavy water flows. Arrange smaller stones on the upstream side and larger stones on the downstream side of the check dam. Construct the dam so that the lowest elevation is at the center of the dam, and the highest elevation of the stones is at either end.[1]
- Check dams erected of local stone were used historically within the study area to control landscape erosion from ridges, and are consistent with the character of the historic landscape.
- Coir fiber logs may be used as an alternative to stone check dams, and will break down over time, becoming less visible as vegetation is established to stabilize the slope.[2]

Maintain

- Manage vegetation to maintain cover on steep slopes greater than 25% grade.
- Maintain check dams by repairing displaced stones as needed.

EXPOSED EARTH

Monitor

- Monitor ground surface for bare areas larger than 12 inches square. Priority should be given to those areas close to trails and areas of heavy visitor or staff traffic, since these areas are more vulnerable to erosion and compaction, and less likely to recover naturally.

Repair

- For bare areas greater than 12 inches square and less than 5 feet square, scarify compacted bare soil. Add appropriate topsoil mix to bring grade of damaged area to level of adjacent soil. Hand broadcast seed over flat and gently sloping terrain (less than 5% slope) with a diverse herbaceous seed mix.
    - Consult with local agricultural extension service to test soil and determine soil type and nutrient value to inform seed mix.
    - Design seed mix specifically for local conditions in which native grasses predominate. Consider using a mix that is dominated by native perennials and includes twenty to thirty percent face germinating native annuals, such as partridge pea. The annuals will help to provide sufficient cover while the perennial seeds germinate.
    - Mulch seeded areas with clean, weed free hay straw or mulch.
    - On slopes greater than 5%, hydroseed with a slurry of seed and clean, weed-free straw mulch.
    - Water thoroughly and fertilize seed as necessary for good germination.
    - As the grass establishes, mow twice a season and water in times of drought.
- For bare areas greater than five square feet, fence repair area with temporary barrier fence. Stabilize with erosion control blanket and revegetate with native grass mix. Allow new grass established by seed to thicken and mature prior to cutting.
- Discontinue all mowing during dormant season.
- In areas that are not bare but have thin grass cover, broadcast warm season grass seed annually as advised for specific species selected.

Maintain

- Once repaired, maintain with vegetation management consistent with the surrounding area.
- If exposed earth continues to reoccur in the same location away from areas of heavy visitor traffic, consider if slope stabilization or an alternate vegetation management strategy, such as grazing or burning, may be applicable to the area.
- If exposed earth continues to reoccur in the same location near trails and areas of heavy visitor or staff traffic, consider an alternate trail or road surfacing.
    - In dry areas where heavy trail use has led to erosion and exposed earth, install crushed fines of stone or wood chip surface on trail.
    - In wet areas, install boardwalk or puncheon.

STREAM STABILIZATION

The guidelines in this section were developed using the *Virginia Stream Restoration and Stabilization Best Management Practices Guide*.[3] The purpose of the information provided in this CLR is not to provide stream channel design for Youngs Branch and Chinn Branch, but to identify stream stabilization techniques that are consistent with the character of the cultural landscape.

Monitor

- Monitor streams to identify specific stream reaches which exhibit degraded functions and values, which may be biological, geomorphic, or water quality related. Identify stream reaches that are good candidates for in-stream improvements, such as modifications to the stream bed and banks and improved connections to the floodplain. To determine streams that are good candidates for rehabilitation, assess the stream to determine stream reaches that are:
    - Stable and do not need modifications
    - Unstable, but are nearing a new equilibrium state
    - Unstable, and could be modified to improve geomorphic stability
- Following assessment of the stream, select an approach to stream design to improve stream structure and function.
- Refer to *Virginia Stream Restoration and Stabilization Best Management Practices Guide* for assessment methods and stream design approaches.

Repair

Vegetation

Re-vegetate stream banks with appropriate native plantings to help stabilize the stream and reduce erosion and stormwater run-off.

Bank Stabilization Techniques

Stream bank stabilization techniques provide mechanical stabilization of the eroded bank through its roots, and buffers the energy of the stream flow from the damaged slope. Bank stabilization guidelines address the stream bank, and focus heavily on the use of dormant woody vegetation and degradable manufactured natural fiber products. Protection of the lower third of the stream bank (or toe) may be considered separately for higher flow streams. Techniques compatible with the character of the cultural landscape include cedar tree revetments, rootwad revetments, fiber rolls, live soil lifts, natural fiber matting, live fascines, brush mattresses, live stakes, and branch layering. Rock revetments can also be appropriate using local materials consistent with the stream bed but may appear ”unnatural,” or may be confused for historic structures. Rock revetment structures that may be confused for historic features should not be implemented in areas where visitors view the stream. Best management practices are described in detail

Figure 6-2. Rootwad revetments and can be effective in protecting the toe of the slope, as well as providing fish habitat, and collecting sediment and debris (source: Montgomery County, MD "Stream Restoration Techniques").

Figure 6-3. Fiber rolls are made of coconut fibers bundled together with biodegradable netting, and can provide temporary protection for the bank while vegetation is established (source: Montgomery County, MD "Stream Restoration Techniques").

Figure 6-4. Branch layering stabilizes the bank with alternating layers of soil and live branches. Branches extend from the stabilized face of the bank into the original bank material (source: Montgomery County, MD, "Stream Restoration Techniques").

Figure 6-5. Natural fiber matting is appropriate as a temporary stabilization measure as vegetation is established on a bank (source: Hylbrook Park, Prince William County Environmental Services).

Figure 6-6. Rock revetment structures provide durable protection to the lower portion of the streambank, and may be combined with integrated bank treatment (source: James Long Park, Prince William County Environmental Services).

Figure 6-7. Step pools are constructed in the stream channel to recreate natural channel morphology. As flow moves over the step, energy is dissipated into the pool (source: Montgomery County, MD "Stream Restoration Techniques")

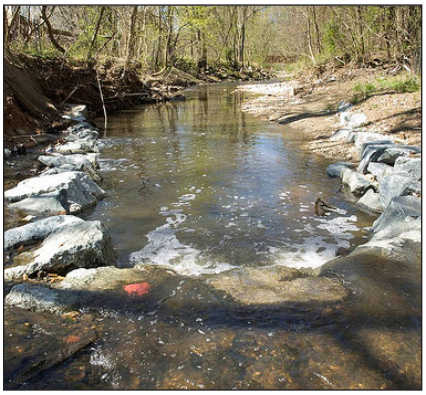


Figure 6-8. Rock cross vanes are constructed to provide grade control and reduce bank erosion (source: Montgomery County, MD "Stream Restoration Techniques").

Figure 6-9. J-hook vanes direct erosional forces away from unstable streambanks and improve aquatic habitat by forming scour pools (source: Montgomery County, MD "Stream Restoration Techniques").

Figure 6-10. Log vanes function similar to rock vanes, but are more appropriate for stream beds with higher proportions of sand, silt, and clay (source: Montgomery County, MD "Stream Restoration Techniques").

in the *Virginia Stream Restoration and Stabilization Best Management Practices Guide*. Examples are provided in Figure 6-2 through Figure 6-6.

Grade Control

Within the stream bed, grade control can be used to raise the elevation of an incise channel, or to train flow away from the banks and into the channel. Rock grade control structures and are most appropriate for medium to large streams with predominately cobble and gravel streambeds. Log structures are well-suited for smaller, steeper systems. Techniques compatible with the character of the cultural landscape include rock cross vanes, rock weirs, step pools, and log drops. Examples are provided in Figure 6-7 and Figure 6-8.

In-Stream Flow Structures

In-stream flow structures are used to slow the flow of water in the stream or divert flow away from an eroding bank. Techniques compatible with the character of the cultural landscape include rock vanes, J-hook vanes, and log vanes, which are used to direct shear stresses and velocities away from the streambank towards the thalweg. Examples are provided in Figure 6-9 and Figure 6-10.

Maintain

Maintain vegetative cover to stabilize stream banks. Add or retain deer exclosures to protect growing vegetation.

MASONRY PRESERVATION BEST MANAGEMENT PRACTICES

Masonry treatment recommendations are applicable to the Chinn House Foundation, Hooe Cemetery wall, and stone culverts on North and South Chinn Drive.

Monitor

- Inspect stone features annually for deterioration. Identify signs of failure in the walls evidenced by tilting, cracking, bowing, sliding, settling, or separation of portions of the wall from adjacent segments.
- Engage a masonry preservation specialist to assess wall if signs of structural failure are present.

Repair

- Ensure that repair treatments match the current materials in color, texture, finish, strength, and permeability, while retaining as much of the original materials as possible.
- When possible, reset the original stones, replacing as necessary if extensive weathering, cracking, crumbling, or other deterioration is present. Replacements should match historic stones in color and texture.

Maintain

- Maintain stone and brick masonry in good condition with less than 10 percent of the surface showing signs of cracking, spalling, corrosion, or erosion.

CIRCULATION BEST MANAGEMENT PRACTICES

ROAD AND TRAIL SURFACE TYPES

Asphalt road

- Maintain asphalt surfaces along New York Avenue, Chinn Ridge trail, and North Chinn Drive in good condition, with only slight traffic wear and cracking. Refer to Chapter 5 for treatment recommendation locations.
- Inspect asphalt surfaces every one to two years. Check for damage in the spring after potential frost heave damage.
- When used as a trail surface, asphalt trail must provide an accessible surface compliant with the Architectural Barriers Act (ABA) and Architectural Barriers Act Accessibility Standards (ABAAS).

Chip and seal asphalt road

- Utilize contrasting color to differentiate historic farm routes at the Chinn Farm from later CCC-era asphalt routes. Refer to treatment recommendations in Chapter 5.
- Chip and seal asphalt can be used to emulate historic gravel or bare earth farm roads while providing a stable driving surface and barrier-free route. Contrasting color is provided by applying crushed rock chips of the selected color to the asphalt surface.
- Inspect chip and seal asphalt surfaces every one to two years. Check for damage in the spring after potential frost heave damage.
- Maintain in good condition, with only slight traffic wear and cracking.
- When used as a trail surface, chip and seal asphalt trail must provide an accessible surface compliant with the Architectural Barriers Act (ABA) and Architectural Barriers Act Accessibility Standards (ABAAS).

Rustic pavement road

- Utilize contrasting color to differentiate historic farm routes at the Chinn Farm from later CCC-era asphalt routes. Refer to treatment recommendations in Chapter 5.
- Rustic pavement is another option that may emulate historic gravel or bare earth farm roads while providing a stable driving surface and barrier-free route. This type of pavement has been successfully implemented at Richmond National Battlefield Park Picnic Road and parking area (see Figure 6-11).[4]
- Rustic pavement utilizes a synthetic binder that allows a greater range of colors for asphalt pavement. Color variations may be achieved through two options:
    - Clear binder replaces the black liquid binder in hot-mix asphalt so that the natural color of the aggregate becomes the dominant pavement color.

- Pigment is added to the mixer during hot-mix production to alter the color of the pavement.

- Similar to other asphalt pavements, inspect rustic pavement asphalt surfaces every one to two years. Check for damage in the spring after potential frost heave damage. Maintain in good condition, with only slight traffic wear and cracking.
- When used as a trail surface, rustic pavement must provide an accessible surface compliant with the Architectural Barriers Act (ABA) and Architectural Barriers Act Accessibility Standards (ABAAS).

Gravel road

- Continue to use gravel along designated fire/maintenance access roads.
- Regularly repair areas of washout, rutting, or other damage.

Concrete Sidewalk

- Concrete sidewalks may be used to provide a barrier-free surface along non-contributing circulation routes. Concrete sidewalk is only appropriate for the New York Monuments Area, and is not recommended for other portions of the study area.
- Maintain sidewalks to be compliant with the Architectural Barriers Act (ABA) and Architectural Barriers Act Accessibility Standards (ABAAS).
- Maintain in good condition with less than 10% of the surface showing signs of cracking, spalling, corrosion, or erosion. Remove and reset panels that exhibit vertical uplift and/or settling of greater than 0.5 inches.

Figure 6-11. Rustic pavement at Richmond National Battlefield Park (source: Federal Highways Administration *Public Roads*).

Bare ground

- Maintain bare ground as a hiking or bridle trail surface in well-drained areas with appropriate soil conditions.
- This surface is not recommended in areas susceptible to erosion or compaction.

Crushed fines of stone

- Utilize crushed fines of stone for pedestrian trails in locations that require stabilization and protection from compaction and erosion.
- Crushed fines of stone compact over time to provide safe, accessible surfaces, and may be used to provide barrier-free routes in locations where sidewalks are not consistent with the historic character of the site. Refer to treatment recommendations in Chapter 5 for surface locations.
- Crushed fines of stone do not require excavation of ground surfaces to establish.

Wood chips

- Utilize woodchip hiking or bridle trails in areas susceptible to erosion and compaction, or where trails would not be easily differentiated from the ground surface.
- Wood chips are inexpensive, easy to establish, do not require excavation into the ground surface, help visitors understand where it is appropriate to walk, provide a safe surface, and reduce compaction and erosion on the ground surface.
- Trees removed and chipped on site can be stored or used immediately for trail surfaces, reducing the expense of removing woody plant materials from the site.
- Woodchips require increased routine maintenance compared to bare earth trails or trail structures, and must be renewed on a one to two year basis.
- Woodchips do not provide an approved barrier-free surface treatment.

Mown grass

- Utilize mown grass trails in areas where hiking or bridle trails pass through open fields.
- Mown grass trails are inexpensive, easy to establish, do not require excavation into the ground surface However, they require regular mowing to maintain a visible route, and may not provide visitors with a clear indication of where to walk.
- This trail surface is not recommended for trails that follow historic routes, as the location of the mown path may vary.

Leaf cover

- Avoid allowing leaf cover to build up as a trail surface. Although leaf cover can be effective in protecting ground surfaces, it can be slippery when wet and may obscure trail locations, resulting in visitors straying from the desired trail route.
- Leaf cover should be maintained as a hiking or bridle trail surface only in locations that are relatively dry and where the trail location is clearly obvious.

TRAILS IN WET AREAS

A variety of approaches are available to address trails in wet areas. Examples of types of trail structures are included in the Unfinished Railroad Cultural Landscape Report pages 6-21 through 6-35.

Puncheon

- In situations where trails are frequently wet and there is not a good way to drain the trail, a puncheon may be used (see Figure 6-12).
- A puncheon is a wooden walkway that consisting of a deck or flooring of sawed, treated timber, or native logs placed on stringers to elevate the walking surface across the wet or uneven area. The entire structure must extend to solid soil so that soft spots do not develop at the ends. The adjoining trail should be straight for at least 10 feet as it approaches the puncheon.
- To prevent dislocation of the puncheon during high water events, anchor puncheon to the ground.

Boardwalk

- Boardwalks are useful solutions for trail surfaces in wet areas or locations with soft ground conditions (see Figure 6-13).
- Boardwalks can be flush with the adjacent grade or supported slightly above the grade to allow drainage to pass underneath.
- All boardwalks must be anchored to the ground in order to maintain a level surface and keep sections from shifting.
- Although the park as indicated a desire to eventually replace all wood boardwalks with recycled plastic lumber boardwalks, this recommendation should be carefully considered as some boardwalks in the Sudley area appear to be warping. It is suggested that a section of boardwalk be constructed with recycled plastic lumber and stringer supports and installed in a sample location. Monitor the condition of this sample over at least one year to determine if the material will compare favorably to wood lumber in the long run.

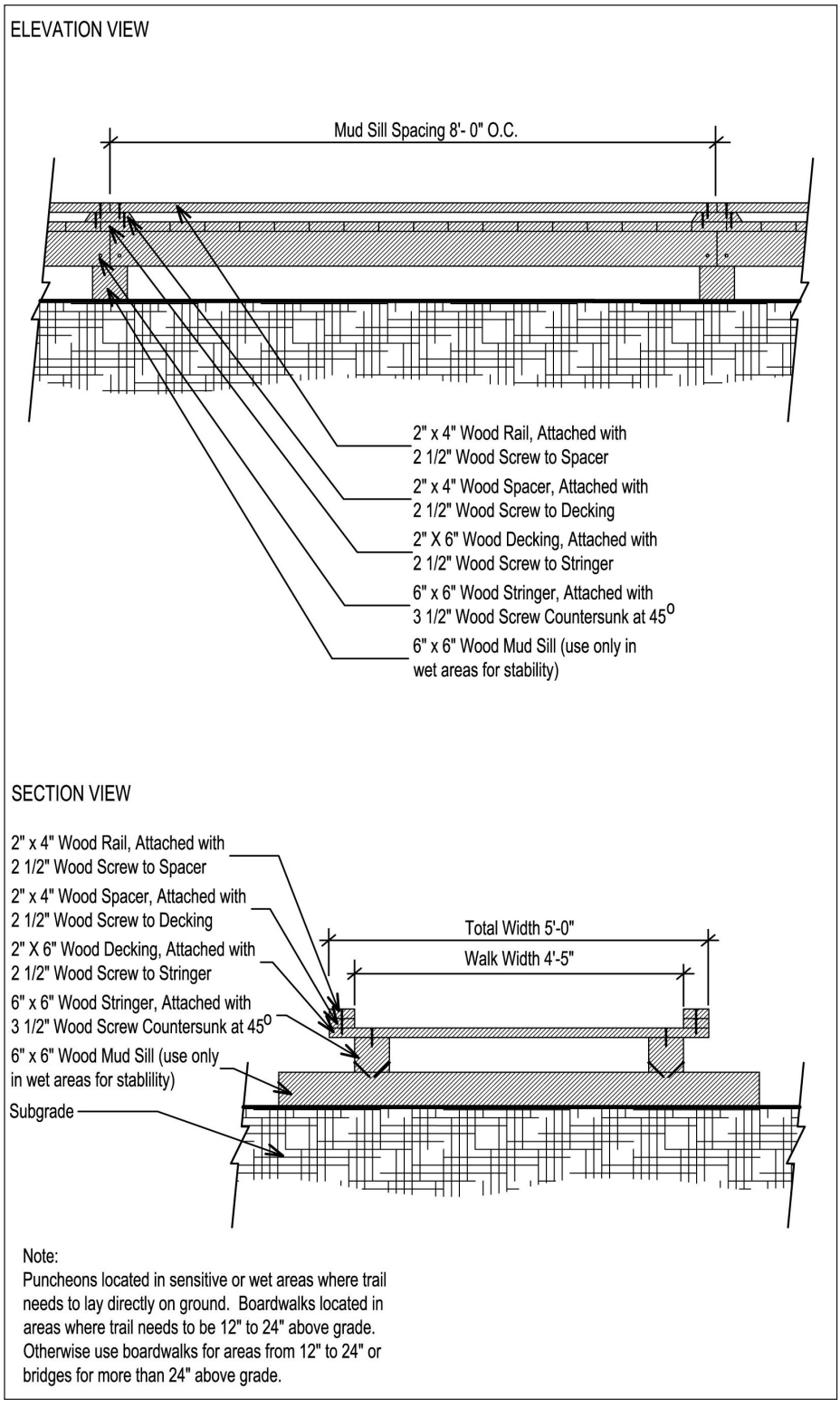


Figure 6-12. Typical puncheon detail.

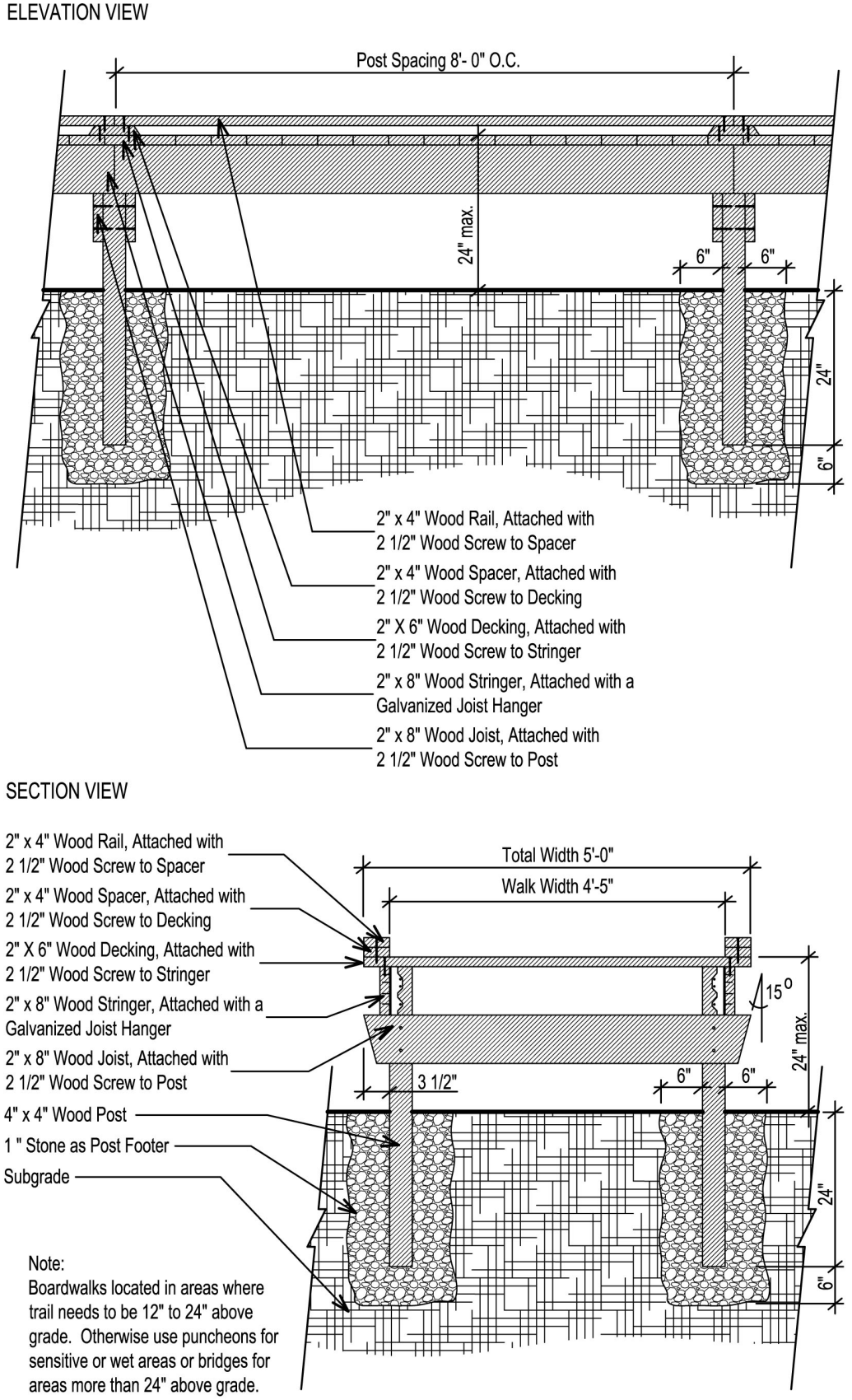


Figure 6-13. Typical boardwalk detail.

VEGETATION BEST MANAGEMENT PRACTICES

Monitor and Evaluate Areas to Be Cleared

- Rehabilitation of broad scale vegetation is most successful when undertaken in a staged approach over several years. This allows for adjustments in approach to be made based on observations of conditions as they develop during the process.
- Three types of transitions are defined and approaches for implementing modifications are described in Chapter 5 - Study Area Vegetation Recommendations. Transition types are illustrated on Figure 5-7 and drawings RT-1 through RT-8 in Chapter 5.
- For each transition type, begin with a small sample area of approximately 2 acres to test techniques and vegetation responses. Monitor results and adjust approach prior to undertaking larger areas of transition.
- Prior to removal of broad areas of woody vegetation to rehabilitate views and landscape character, conduct a detailed survey of the area to be cleared. Note the presence of conditions including but not limited to:
    - Vegetation community. The following communities were identified in the vegetation survey of Manassas Battlefield Park (see Figure 3-39 in Chapter 3) and are dominant vegetation types within areas to be rehabilitated:
        - Dry-mesic acidic oak-hickory forest
        - Hardpan basic oak-mesic forest
        - Successional upland forest
        - Tuliptree small-stream floodplain forest
        - Less dominant vegetation types that may also be encountered in these areas include successional shrub land, native grassland, and meadows.
    - Topography and slope. The following slope designations are used within this report (see Figure 3-1 in Chapter 3).
        - Gentle slope (0-8% grade)
        - Moderate slope (8-25% grade)
        - Steep slope (greater than 25% grade)
    - Rocky or highly erodible soils
    - Wet areas
    - Evidence of fencelines/posts
    - Rock piles
    - Disinterred gravesites
    - Legacy vegetation
    - Suspected unexploded ordnance
- Conduct critical or sensitive habitat or species inventories prior to implementing major vegetation clearing.
- Carefully evaluate individual resources within these areas as well as the community as a whole to determine the extent of woody vegetation to be cleared to rehabilitate the view. Consider if individual trees or high-quality stands can be retained while reestablishing significant visual

connections. All impacts of this potential action are to be fully explored during NEPA review.

- Consult with the regional archeologist regarding the preservation of archeological resources prior to implementing vegetation strategies.
- Based on detailed site conditions within forests to be cleared for view rehabilitation, select an appropriate vegetation community modification type.
- Based on monitoring of a sample treatment area, adjust the vegetation modification type to respond to specific conditions.

Modify and Maintain Vegetation

Vegetation Modification Type A: Native Grassland/Meadow for Hay Lease

Vegetation Modification Type A is appropriate for existing mixed successional forest and oak-hickory forest situated on gentle to moderate slopes. In these areas, rocky soils and archeological features are limited. The final condition for these locations is a native grassland/meadow managed as a hayfield through annual mowing and baling.

Clearing of second growth woody vegetation is a critical step in establishment of all vegetation modification types recommended in Chapter 5. Consistent with the Fields, Fencelines, and Forests Cultural Landscape Report, it is recommended that woody vegetation removal follow the guidelines established in the *Brawner Farm - Deep Cut Vista Enhancement Environmental Assessment*:[5]

- Conduct timber operations only during dry or frozen conditions as determined by park staff. Preserve selected individual legacy trees.
- Engage NPS archeologists to make periodic visits to monitor work during vista clearing operations.
- Minimize soil disturbance through the use of specialized harvesting equipment and establishment of a secondary surface for soil protection. Utilize specialized harvesting equipment, including track-operated timber harvesters, and either wheeled or wheel and track-operated forwarders for hauling to the landing. Do not drag or skid logs across the surface of the soil. Lay a secondary surface of pine tops/limbs and 4" or less stems that will allow equipment to tram across the surface, reducing soil disturbance and compaction.
- Delimb large lumber, cut into 8-foot lengths, and stack for removal. Chip all saplings, brush, and limbs and hauled away, with some of the mulch spread over the cutting area.
- To prevent damage to the soil and archeological resources, cut stumps 3-6 inches from the ground.
- Keep the area open by maintenance using brush hogs, avoiding any remnant archeological features. Grind any stumps that are too high and interfere with the bush hog operation. Avoid disturbance to any remnant archeological features. If sensitive features are located, maintain these areas in shrub land (Vegetation Modification Type C) through periodic cutting.

- Initially, leave cleared areas re-vegetate on their own. Maintain as a mix of grass and shrub land community types via either periodic mowing or alternate management such as grazing or prescribed fire as described in Vegetation Modification Type B.
- Any new plantings in the rehabilitated area should consist of historically accurate, native species. Consult with DCR-DNH stewardship staff for lists of suitable, commercially available species.
- Monitor for invasive vegetation species throughout the process, and manage according to existing practices.
- Establish hayfields and manage through hay lease. Within the battlefield park, hay harvesting is a cost-effective means of maintaining open space without placing additional maintenance burdens on park staff, and is considered the preferred approach for vegetation modification to the greatest extent possible within the study area.

Vegetation Modification Type B: Native Grassland/Meadow for Open Viewshed Management

This transition is appropriate for areas of existing woodlands situated on uneven grade, rocky soils, steep slopes, or other limited conditions where a transition to grassland is necessary to reestablish significant views. In these locations, maintain native grasses through periodic mowing or alternate means of vegetation management including goat grazing or prescribed fire. This vegetation modification type may also function as a intermediate stage between clearing woody vegetation and establishing native grassland/meadow for hay production. Following initial clearing of woodlands, the cleared area is likely to contain woody debris and stumps that may prohibit immediate hay harvesting or mowing.

For low slope areas, grazing and controlled burning may be used until the restored grassland is in a condition where hay harvesting or mowing are viable options. Vegetation modification best management practices for Type B are similar to those employed in Type A. However, due to the slope, soil, or other conditions, conversion of these areas to hay production may not be feasible.

- Remove woody vegetation in identified areas, following the guidelines established in the *Brawner Farm - Deep Cut Vista Enhancement Environmental Assessment* to the extent possible.[6] Maintain select limited individual trees in locations where steep slopes, rocky soils, or other limiting factors necessitate woody vegetation to stabilize the ground surface, and where the woody vegetation does not interfere with viewshed rehabilitation. Trees with cultural value may also be retained. Larger stumps may be left in place by necessity.
- Establish native grassland/meadow. Any new plantings in the restored area should consist of historically accurate, native species. Consult with DCR-DNH stewardship staff for lists of suitable, commercially available species.

- Maintain native grasses through periodic mowing or alternate means of vegetation management including goat grazing or prescribed fire.
    - Limited mowing:
        - If mown, this vegetation modification type corresponds to Class C Mowing Areas in the 2016 Mowing Plan for Manassas National Battlefield Park. Class C Mowing Areas are mown to maintain open viewsheds, promote wildlife habitat, and manage exotic invasive plant species. To minimize potential impacts to wildlife, these areas will be mown after September 1st and prior to March 1st on a biennial basis.[7]
        - Brush hog or mow 1-2 times per season to maintain the opening.
        - In areas with uneven ground surfaces and moderate slopes, mow using boom mowers or specially designed self-leveling mowers.
        - Mow no lower than 6 to 8 inches above the ground surface.
    - Goat grazing:
        - Trailer goats to the site and allow to graze in small sections in portable enclosures fenced with electric wire. Move goats to the next section as vegetation is reduced.
    - Prescribed burn:
        - Follow Fire Management Plan
        - Conduct prescribed fires on small 10- to 20-acre areas, will following a burn plan approved by the park superintendent. In some cases, this may cover only a portion of the desired area at a time.
        - Seed burned areas with an NPS-approved seed mix that emphasizes regeneration of native species.
- Monitor cleared areas for invasive species, and manage according to existing practices.

Vegetation Modification Type C: Successional Shrub Land

This transition is appropriate for areas of existing mixed successional forest and oak-hickory forest situated on uneven grade, rocky soils, steep slopes, or other limiting surface conditions. This transition type is to be used at lower elevations where successional shrub land vegetation will not interfere with significant views.

- Clear large woody vegetation. Retain limited individual trees and shrubs. Based on conditions, low stumps may be retained.
- Conduct timber operations only during dry or frozen conditions as determined by park staff.
- Engage NPS archeologists to make periodic visits to monitor work during vista clearing operations.
- Minimize soil disturbance through the use of specialized harvesting equipment and low impact tree removal techniques. Do not drag or skid logs across the surface of the soil.
- Delimb large lumber, cut into 8-foot lengths, and stack for removal. Chip all saplings, brush, and limbs and hauled away, with some of the mulch

spread over the cutting area.

- To prevent damage to the soil and archeological resources, cut stumps 3-6 inches from the ground.
- Retain low woody species such as small trees and shrubs.
- Any new plantings in the restored area should consist of historically accurate, native species. Consult with DCR-DNH stewardship staff for lists of suitable, commercially available species.
- Monitor cleared areas for invasive species, and manage according to existing practices.
- Maintain through periodic mowing or alternate means of vegetation management including goat grazing or prescribed fire. If mown, this vegetation modification type corresponds to Class D Mowing Areas in the 2016 Mowing Plan for Manassas National Battlefield Park. Class D Mowing Areas allow habitat to develop into a stage of successional shrub land, while preventing large woody vegetation from becoming reestablished. Mowing of these areas will consider wildlife and the propagation of wildflowers. To minimize potential impacts to wildlife, these areas will be mown after September 1st and prior to March 1st on a triennial basis.[8]

Vegetation Modification Type D: Riparian Buffer Managed for View Corridors

Vegetation Modification Type D establishes a riparian buffer within 100 to 300 feet of existing perennial and intermittent streams. This vegetation type is intended to protect waterbodies while allowing for selective removal of tall woody vegetation that blocks views.

- Maintain existing oak-hickory forest, mixed successional forest, and floodplain forest for the portion of the riparian buffer between 100 and 300 feet away from the stream bank.
- Selectively prune or remove limited tall woody vegetation that blocks views.
- Conduct timber operations only during dry or frozen conditions.
- Engage NPS archeologists to make periodic visits to monitor work during selective removal operations.
- Minimize soil disturbance through the use of specialized harvesting equipment and low impact tree removal techniques. Do not drag or skid logs across the surface of the soil.
- Delimb large lumber, cut into 8-foot lengths, and stack for removal. Chip all saplings, brush, and limbs and haul away. Some of the mulch may be spread over the cutting area.
- To prevent damage to the soil and archeological resources, cut stumps 3-6 inches from the ground.
- Monitor for invasive species and damage from burrowing, and manage according to existing practices.

Vegetation Modification Type E: Floodplain Forest Protection Zone

Vegetation Modification Type E is located within 100 feet of the stream bank. Within this zone, the forest is to remain intact to maximize protection of the waterbody.

- Monitor and manage the floodplain forest protection zone for invasive species and hazard trees according to existing NPS protocols.

Invasive Species

- Apply intensive management of invasive species in areas where mowing, cutting, burning, and/or grazing is not effective in controlling invasive plants. Follow the invasive species protocol previously established for the Battlefield Park.

Endnotes

1 Northern Virginia Soil and Water Conservation District, "Stop Erosion - Solving Drainage and Erosion Problems," Fairfax County, Virginia, accessed May 2018, https://www.fairfaxcounty.gov/soil-water-conservation/drainage-problem-protect-eroding-land.

2 Northern Virginia Soil and Water Conservation District, "Stop Erosion - Solving Drainage and Erosion Problems."

3 Virginia Stream Management and Technical Design Workgroup, "The Virginia Stream Restoration & Stabilization Best Management Practices Guide,"(Virginia Department of Conservation and Recreation, Division of Soil and Water Conservation, 2004).

4 Michael P. Dalliare and Scott A. Saunders, "Rustic Pavements," *Public Roads: Federal Highway Administration and Research Technology Magazine* 68 (2): 2004.

5 United States Department of the Interior, National Park Service, "Brawner Farm - Deep Cut Vista Enhancement," Environmental Assessment, 2008.

6 United States Department of the Interior, National Park Service, "Brawner Farm - Deep Cut Vista Enhancement," Environmental Assessment, 2008.

7 National Park Service, *Mowing Plan for Manassas National Battlefield Park* (U.S. Department of the Interior, National Park Service, 2016), 12-14.

8 National Park Service, *Mowing Plan for Manassas National Battlefield Park* (U.S. Department of the Interior, National Park Service, 2016), 12-14.

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Site Chronology

Appendix A

Chapter title page: excerpt of W.G. Atkinson, *Map of the Battle Fields of Manassas and the Surrounding Region Showing the Various Actions of the 21st July, 1861 Between the Armies of the Confederate States and the United States*, 1861 (Yale University).

Appendix A: Site Chronology

INDIGENOUS OCCUPATION BEFORE 1608

ca. 11,000 BC to 8,000 BC (Paleo-Indian Period)

The Paleo-Indian period began at the end of the Wisconsin glaciation. The climate was wetter and cooler than at present, and dominant vegetation consisted of a stunted forest of fir, spruce, and pine. The region was inhabited by large game including woodland caribou, elk, moose, bear, peccary, mastodon, mammoth, and musk ox. Indigenous peoples likely lived in semi-nomadic bands engaged in seasonal hunting; the most distinctive artifacts discovered from this period are a series of fluted projectile points.[1]

ca. 8,000 BC to 3,000 BC (Early and Middle Archaic Periods)

As the climate warmed during the Early and Middle Archaic periods, flora evolved into a deciduous forest similar to modern woodlands, dominated by oak, hickory and chestnut species. Indigenous peoples appear to have clustered in the highlands adjacent to streams, which provided occupants with access to a wide range of habitats. Grinding stones were used during this period, suggesting that vegetables may have become more important in the local diet; shellfish and fish were also consumed. Woodworking tools and net sinkers provide evidence that early peoples were creating wooden materials, mats, baskets and nets.[2]

ca. 3,000 BC to 1,000 BC (Late Archaic)

Late Archaic sites comprise the most common archeological material associated with Indigenous occupation at Manassas National Battlefield Park. These sites are typically concentrated near major streams. The people that occupied the region during this period may have been semi-sedentery, or may have occupied the same encampments repeatedly. Projectile points were commonly produced from local lithic material such as quartz and quartzite, which were probably obtained from cobbles along the banks of Bull Run and Youngs Branch.[3] Soapstone (steatite) bowls were produced during this period.[4]

ca. 1,100 BC to AD 900 (Woodland Period)

Compared with the relatively high number of Late Archaic sites located on the battlefield, the small amount of Woodland materials indicates a drop in American Indian land use during this time period, representative of a dramatic shift in settlement patterns, particularly during the Early and Middle Woodland periods.[5]

Late Woodland pottery has been found within the Bull Run drainage, suggesting that groups living along the James, York, Rappahannock, and Potomac Rivers in the later part of this period might have been utilizing the area for hunting and foraging. Occupation may have been included seasonal camps, from which inhabitants could process materials to be brought back to their villages along the Potomac River.

Clay pottery vessels were developed during this period, and the presence of ceramics indicates that some sites may also have been occupied year-round. The introduction of domesticated plants also led to major social changes during the Woodland Period. As horticulture became more intensive and new crops, including maize, were introduced, many groups became increasingly sedentary. Within the battlefield area, the flood plain may have been utilized for agricultural use; the soils of the flood plain east of Bull Run are ideal for maize cultivation given their high clay content and moist setting.[6]

ca. 900 AD-1607

By 900 AD, many people in the Mid-Atlantic were living in permanent villages. Indigenous peoples participated in complex political organizations, evidenced in the landscape by the appearance of formally arranged, stockaded villages. Regional examples of these polities include the Powhatan Chiefdom of the James, York, and Rappahannock Rivers, and the Conoy Confederation of the Western shore of Maryland.[7]

EARLY EUROAMERICAN SETTLEMENT, 1608-1724

1608

John Smith, English explorer and sea captain, was one of the first European visitors to what would become Virginia. Smith sailed up the Potomac River, noting native villages belonging to the ancestors of the Piscataway peoples at what is now Theodore Roosevelt Island.[8]

early 1600s

Early land grants were awarded to Europeans along the Potomac. Property descriptions were based on landscape features such as trees or rocks that were visible from boats on the river. Europeans took great care to avoid chance encounters with indigenous peoples, who were reportedly hostile to the idea of Europeans settling on their land. Defensive measures were clearly indicated in the descriptions of land grants.[9]

1681

Lord Culpeper was granted rights to land within the tidewater region of Virginia from British King Charles II. Upon his death, the property passed to his daughter who married Thomas, Lord Fairfax. Known as the Northern Neck Proprietary or Fairfax Land Proprietary, it included 5,282,000 acres of land between the Rappahannock and Potomac Rivers to their headwaters.[10]

early 1700s

Settlers from the Virginia Tidewater moved to the Virginia Piedmont in search of fertile land for tobacco cultivation. Large tracts of land were deforested and cultivated for agriculture.[11]

1701 to 1711

Robert "King" Carter served as an agent of the Northern Neck Proprietary.[12]

1722 to 1732

Robert "King" Carter served as an agent of the Northern Neck Proprietary.[13]

COLONIAL VIRGINIA, 1725-1768

1724

Robert "King" Carter purchased the "Lower Bull Run" and "Great Bull Run" tracts. Together with the Middle Bull Run tract, purchased five years later, these tracts made up most of the land within the current boundary of Manassas National Battlefield Park. The Great Bull Run tract was divided by several of Robert Carter's descendents, Mann Page, II, Landon Carter, Sr., and George Carter, Sr.[14]

1725

Thomas Lord Fairfax granted 280 acres to Ann Bivin. Bivin's land bordered the Lower Bull Run tract on the east. The two parcels were divided along what is now roughly the north-south alignment of Sudley Road.[15]

1729

Robert "King" Carter purchased "Middle Bull Run" tract, including the northwest portion of the study area. The land would be acquired by his heir, Landon Carter, Sr.[16]

1734

Anthony Haynie purchased Ann Bivin's tract, and an adjoining 169-acre tract owned by Isaac Fergusson and his wife Elizabeth via lease and release.[17]

ca. 1756

Landon Carter, Sr. sent two of his younger sons, Landon Carter, Jr. and John Carter, to manage the family's holdings in Prince William County. Landon Carter, Jr. managed 2,600 acres of the surrounding landscape, which included the northern portion of the study area.[18]

1760

Upon his death, Anthony Haynie willed his land, including Ann Bivin's tract, to his sons Spencer and Bridger Haynie. Bridger Haynie eventually acquired his brother Spencer's share, increasing his parcel to 343 total acres.[19]

PLANTATION DEVELOPMENT IN PRINCE WILLIAM COUNTY, 1769-1860

1769

Bernard Hooe Sr. leased 343 acres of land from Bridger Haynie and his wife, Margaret. Later that year, he purchased the land for 226 pounds, two shillings and four pence, plus five shillings for the lease.[20] At approximately this date, Hooe built Hazel Plain, a substantial Georgian-style home. He would reside at Hazel Plain until his death in 1825.[21]

ca. 1787

Wormley Carter, son of Landon Carter, Jr. married Sally Edwards in 1787 and likely established himself as an independent household at approximately this time on portion of his father's lands north of Youngs Branch.[22]

1780s

By this time, the main complex at the Hooe plantation, consisting of the main house and a series of associated outbuildings, was in operation. Personal property tax records indicate that in the early 1780s, Bernard Hooe owned between 30 and 40 slaves, 10 to 20 horses, 15 cattle, and two carriages.[23]

1793

Wormley Carter purchased 600 acres of land from his father, Landon Carter, Jr., for a token amount of 5 shillings. The property included "a certain tract of land whereon he has for some time resided containing Six hundred acres lying about his said Wormley's Dwelling House."[24]

1795

Sarah Hooe was buried in the Hooe family plot. This is the first known burial in the cemetery.[25]

1800

Henry Dogan acquired 349 acres of land from the heirs of Robert "King" Carter and established a plantation named "Peach Grove" along a stream known as Mine Hole Branch (later renamed Dogan Branch). The property had formerly been part of Landon Carter, Jr.'s Pittsylvania estate. [26]

1810

By this time, Bernard Hooe Sr. owned 5,843 acres of land on different tracts in Prince William County. Within the next ten years he increased his property holdings in the county by 1,000 acres. His brothers and their descendants owned

and operated nearby plantations at Barnesfield, Pilgrim's Rest, Mayfield (formerly Buckhall), Locust Grove (formerly Greenwood), and Bradley.[27]

Henry Dogan purchased property to the south of Groveton, adjacent to the woodlot along Youngs Branch, from Wormley Carter. Henry Dogan eventually acquired over 700 acres in the area of Groveton (see Figure 2-61).[28]

1808-1815
Warrenton Turnpike constructed from Alexandria, Virginia to Warrenton, Virginia.[29] The turnpike was laid along the northern limit of the study area.

ca. 1814-1822
A building located near the intersection of the Warrenton Turnpike and Sudley Road likely served as quarters for enslaved African Americans who labored at the plantation.[30]

1815
Ann Hamilton inherited the 125-acre Rosefield property in the norther portion of the study area upon her father Wormley Carter's death.[31]

1823
Henry Dogan died, leaving part of his estate, including "Peach Grove," to his eldest son William H. Dogan.[32]

1824-1825
Improvements were made to Warrenton Turnpike, including construction of the Stone Bridge to the east of the study area.[33]

1825
Bernard Hooe, Sr. died, willing portions of his land to his wife Margaret Pratt Hooe and to his daughters, Elizabeth Thacker Hooe and Lucy Hooe Buckner.[34]

1831
William H. Fowle, husband of Elizabeth Thacker Hooe Fowle, Bernard Hooe Sr.'s granddaughter, advertised the Hazel Plain estate for rent in the *Alexandria Gazette*.[35]

1834
William H. Fowle advertised the 550-acre Hazel Plain tract for sale in the *Alexandria Gazette*, along with five other tracts for a total of over 3,200 acres.[36]

1836 -1853

Margaret Pratt Hooe died, passing her portion of the Hazel Plain estate (957 acres) to her granddaughter, Elizabeth Thacker Hooe Fowle. Land ownership records are limited for the period of time between Margaret Pratt Hooe's death in 1836 until Hazel Plain was sold to Benjamin Chinn by his nephew William Yates Downman in 1853.[37]

1843

Ann Hamilton sold a portion of the Rosefield property to her husband's aunt, Ann H. Edwards. Property records are unclear, as the taxes continue to be paid under the estate of her deceased husband, Robert Hamilton, through 1845.[38] One month later, Ann Hamilton sold a 118-acre parcel adjoining the Rosefield property to John Dogan.[39]

1844

Hazel Plain and Bradley estates are offered for sale in the *Alexandria Gazette*.[40]

1845

Ann Hamilton sold the remainder of the Rosefield property to John Dogan.[41]

1848-1854

The Orange & Alexandria Railroad Company was the first railroad line established to serve the region in 1848. By 1851, the line had reached Manassas Junction, and the entire line was in operation by 1854.[42]

1850-1857

Manassas Gap Railroad Company was formed to construct a line from the Orange & Alexandria line through Thoroughfare Gap. In 1857, all construction work was stopped on the partially finished route. At this time, the most difficult grading and masonry work had been completed.[43]

1851

Benjamin Tasker Chinn moved his family to Hazel Plain to care for his ailing sister, Sophia Elizabeth Chinn Downman Jones. Upon her death, Sophia Jones conveyed the 550-acre Hazel Plain to her son William Y. Downman and his wife Mary Ann Downman.[44]

1853

Benjamin Tasker Chinn purchased Hazel Plain from his nephew William Y. Downman for $6,500. Chinn financed the purchase through George H. Carter for repayment within 5 years.[45]

1854

William H. Dogan died and willed his land to his wife and children. Lucinda Dogan, the widow of William H. Dogan, was allotted a 50-acre woodlot on the south side of Warrenton Turnpike, among other lands not within the study area; her children retained interest in the woodlot as remaindermen. Their son John F. Dogan and daughters Catherine, Anna, and Henrie Ester were also allotted land southeast of Groveton; there were no improvements on these portions of the property. Medora L. Dogan was willed two parcels totaling 47 acres southeast of Groveton. Her parcels included a house referred to as the "Wigginton's House."[46]

1856

Benjamin Tasker Chinn offered the Hazel Plain estate for sale. It was described the estate as 550 acres, with a two story frame dwelling house containing 8 rooms and all necessary outbuildings.[47]

THE CIVIL WAR, 1861-1865

1861

April - May. The Civil War began with the Confederate victory at Fort Sumter in April, 1861. In recognition of Virginia's strategic importance to the Confederacy, Richmond was declared the capital of the Confederate States of America shortly thereafter. Federal forces expected that they could quickly quell the southern rebellion by capturing the new Confederate capital.[48]

July 16-18: On July 16, 1861, Union General Irvin McDowell assembled 35,000 men, the largest field army established to that date in North America, and marched west from the Union headquarters in Washington, DC. Meanwhile, approximately 22,000 Confederate troops under the command of General Pierre G. T. Beauregard established themselves to protect the important railroad center near Manassas Junction, located south of Sudley. The railroad served as a critical lifeline between Washington, D.C. and Richmond for the poorly supplied Confederate army.[49] In anticipation of the Federal advance, Confederate soldiers positioned artillery and dug rifle pits to cover key Bull Run crossing points. Though the steep banks of Bull Run provided excellent defensive positions, the creek's many fords made the stream difficult to protect.[50]

At the time that the Federals had begun their march from Washington, DC, they believed that they would have the advantage in facing a numerically inferior Confederate force under Beauregard at Manassas Junction. However, the slow westward march of the inexperienced Union Army allowed time for Confederate reinforcements under the command of General Joseph E. Johnston to arrive from the Shenandoah Valley to the west via the Manassas Gap Railroad. On the morning of July 21, the Federals faced a relatively equal force of 32,000 Confederate soldiers.[51]

July 18: A skirmish occurred at Blackburn's Ford to the east of the Manassas battlefield.[52]

July 21: First Battle of Manassas

In the last phase of the battle, the Union right flank comprised of Colonel Oliver O. Howard's brigade moved to occupy the high ground at Chinn Ridge. Howard's Brigade had brought up the rear of the Federal column, and by the time they reached the front, the Union was faltering against the Confederate line on Henry Hill. They intended to outflank the Confederates, anchoring their attack on the high ground of the ridge.[53] This position was soon broken by two brigades of Confederate reinforcements commanded by General Jubal Early and Colonel Elzey. The Confederates had moved into the low ground along the Chinn Farm

Road and Chinn Branch, obscured by woody vegetation and farm structures, and then charged up the hill, flanking the Federal forces and pushing them northeast, back toward Sudley.[54]

ca. September 5: Soldiers from Confederate Colonel Francis S. Bartow's brigade constructed a memorial on Henry Hill at the location of the Colonel's death. This was the first commemorative marker for the First Battle of Bull Run.[55]

December 1861 to March 1862: Confederate troops camped in the woods near Portici, southeast of the study area.[56]

1862

March: General George B. McClellan moved his troops by water from Washington, DC, to Fort Monroe, Virginia, less than 100 miles from the Confederate capital. Anticipating this, the Confederates departed Manassas and marched south to counter the Union threat, destroying the Stone Bridge as they evacuated the Manassas/Centreville area. A makeshift timber bridge was constructed in its place, using the original stone abutments.[57]

late June: Confederate General Robert E. Lee pushed McClellan back from Richmond. Lee's strategy involved attacking Union General John Pope before he could be reinforced by McClellan's army.[58]

early August: The Confederate army under General Robert E. Lee had scored a succession of victories in the Virginia Peninsula, and had succeeded in keeping the Union army out of Richmond. The Union army was divided. Much of their strength was with George McClellan on the peninsula southeast of Richmond. The remainder was in northern Virginia, under the command of General John Pope's newly formed Army of Virginia, which threatened to disrupt supply lines to Richmond by cutting off the Virginia Central Railroad. Lee intended to strike General Pope's army before McClellan's troops arrived to provide reinforcements, thereby outnumbering the Confederates two to one.[59]

August 27: Troops under command of Maj. General "Stonewall" Jackson plundered and burned the Federal army's supply depot at Manassas Junction. Incensed, Pope abandoned his positions along the upper Rappahannock River and headed back towards Manassas to confront Jackson.[60]

August 28-30: Second Battle of Manassas

August 28. The battle began as an attack on Pope's troops as they marched along the Warrenton Turnpike past Groveton on the evening of August 28th, 1862.[61]

August 29. An intense skirmish took place at Groveton between Union troops under the command of General John Hatch and elements of General James Longstreet's wing led by General John Bell Hood.[62]

August 30. On the afternoon of August 30th, 1862, Pope ordered wave after wave of attacks on Jackson, unaware of the location of Confederate reinforcements with Lee and Longstreet already on the field. Longstreet, with a wing nearly 30,000 strong, took advantage of the rapidly diminishing Union lines to push his massive columns forward over Chinn Ridge and push Union forces back to Henry Hill. In the area west of Chinn Ridge, near Groveton, the 5th and 10th New York regiments held defensive positions as long as they could before retreating over Youngs Branch south of the Warrenton Turnpike. The Union forces made a stand on Chinn Ridge and, then fell back to defensive positions at the Sudley Road grade and Henry Hill. As darkness fell on August 30th, the defeated Union army withdrew once again over Bull Run towards Washington.[63]

RECOVERY, 1866-1905

1870

Benjamin T. Chinn and his wife Edmonia sold the 550-acre Hazel Plain to their son-in-law Robert H. Tyler for $5 with the intent of having Tyler sell the property to settle debts of the William Y. Downman estate.[64]

1871

June 7. Trustee William H. Fitzhugh advertised 550-acre Hazel Plain for public sale in the Alexandria Gazette.[65]

1872

Mrs. Quincy L. Sanford purchased the 550-acre Hazel Plain from Mary A. Downman, administratrix of William Y. Downman, deceased, through trustee William H. Fitzhugh for $3000.[66]

1875

Land comprising what is now a portion of the New York Monuments area was transferred to William H. Dogan, Jr., following the death of his sisters Catherine E. and Anna M. Dogan.[67]

John Dogan passed away. His wife, Ann, continued to live at the 114-acre Rosefield property with niece Mary Jane Dogan.[68]

1878

The War Department produced the Warren Surveys, which documented the existing conditions of the Groveton and Sudley area. The purpose of the surveys was to retrace the maneuvers of the battle, comparing the maps to battle maps produced soon after the Second Battle of Manassas. The maps were used for the John Fitz Porter court-martial retrial hearings. The survey documented fence lines, building locations, vegetation cover, and roads (see Figure 2-12 in the previous section).[69]

1879

The Rosefield property was purchased by the estate of D. F. Hooe.[70]

1882

John Cross paid $2000 for the "land lying near Groveton known as the John D. Dogan tract."[71] The deed to Rosefield was released in 1886 with an additional $1500 payment from Cross.[72]

1883

Mrs. Q.L. Sanford sold the Chinn Farm property to Andrew Cather for $2208.[73] Cather's large family continued to live in the house for the next 50 years.[74]

before 1896

Medora Dogan died prior to August 29, 1896, leaving her land south of Lee Highway to her mother and living siblings.[75]

1890

John Cross passed away. Son W.R.E. Cross received the portion of property that had been the site of the house at Rosefield, and included property in the study area on the north side of Youngs Branch.[76]

1904

August. Confederate Monument at Groveton Cemetery was erected by the Bull-Run Chapter of the Daughters of the Confederacy.[77] The monument is located immediately north of the study area on the opposite side of Lee Highway (formerly Warrenton turnpike), and is visually prominent in the viewshed.

September. The US Army conducted peacetime maneuvers on sixty-five thousand acres of sparsely populated farmland in Manassas extending from Bull Run to Thoroughfare Gap.[78]

COMMEMORATION AND MEMORIALIZATION, 1905-1940

Chronology

1905

July 21. Surviving veterans of the 7th Regiment Georgia Infantry placed a marker during their reunion on the battlefield. The marker was located north of the present day Maintenance access road, west of Sudley Road.[79]

1906

The Legislature of the State of New York created commissions and authorized them to purchase land for the erection of monuments to the Brooklyn Fourteenth, Fifth New York Volunteer Infantry (Duryee's Zouaves), and Tenth New York Volunteers (National Zouaves).[80] The iron gate memorializing the Fifth New York Volunteer Infantry was also constructed as part of this effort..[81]

Henry and Elvira Ayres, owners of the Stone House property on the northeast corner of the Sudley/Warrenton Turnpike Intersection, sold a 14 acre tract to R.C. Guthrie. The 1904 Army Maneuvers Map indicates a structure under the name of "Guthries" in the southwestern corner of this intersection, however, it is not clear if this parcel was the property acquired during the 1906 sale.[82]

1910

Following the death of Lucinda M. Dogan, the 50 acre woodlot dower passed to her children; remaining interests in the woodlot were owned by John F. Dogan, Henrie E. Dogan, and Margaret Catherine Wiley.[83]

1914

October 21. Survivors of the 12th Massachusetts Regiment and members of the Colonel Fletcher Webster Post dedicated a monument to Colonel Fletcher Webster near the location where he was mortally wounded in the Second Battle of Manassas on the crest of Chinn Ridge.[84]

1921

John and William Dogan sold 195.5 acres of Groveton, including property in the northwest portion of the study area, to C.C. Lynn.[85]

The Sons of Confederate Veterans established the first park at the site of the Manassas Battlefields by purchasing the 128-acre Henry farm, east of the study area across Sudley Road, in May 1921.[86]

1926

Persuaded by early efforts to preserve the battlefield and reflecting a renewed

interest in commemorating the actions of American soldiers, Congress reconsidered the idea of establishing battlefield parks. In June of 1926, legislation authorized the War Department, then in charge of all battlefield parks, to survey and identify battlefields on US soil.[87]

The poor condition Warrenton Turnpike was realigned and paved with concrete. The road was redesignated US Route 29-211.[88]

September. E. May Dogan and C.C. Lynn conveyed 20.12 acres in the northwest portion of the study area to Edward Crawford.[89]

1933
The National Park Service obtained control of the War Department's historic parks and monuments.[90]

1935
The Roosevelt administration designated 1,476 acres of the Manassas battlefields as the Bull Run Recreational Demonstration Area.[91]

The Bull Run Recreational Demonstration Area included the entirety of the study area. The Chinn property (Swart property) and New York Monuments area (Moore property) were identified as priority properties for acquisition. The plan identified a significant view to be reestablished through clearing vegetation between Chinn Ridge and the Henry House, and proposed realignment of the roads and trails accessing the Chinn House.[92]

1936
Cordelia Cather Swart, her husband Hamilton Swart, and her sister Anna Cather conveyed 523.74 acres, including the Chinn House, to the U.S. government.[93]

A series of WPA projects were undertaken at Chinn Ridge for development of the Bull Run Recreational Demonstration Area. The farm road, which provided access to the Chinn House, was realigned, and a new road was established along the ridge to facilitate interpretation of the battle site. Another road was added along the length of Chinn Ridge. Archeological investigations and stabilization of the remains of the Chinn Farm were undertaken at this time, and the Hooe Cemetery was investigated.[94] Emergency bracing was installed on the exterior of the building to stabilize the structurally compromised Chinn House, and stabilization measures were undertaken in the basement of the Chinn House to address erosion damage.[95] The dilapidated Chinn stables were dismantled.[96] Successional

vegetation on Chinn Ridge and Bald Hill was extensively cleared in order to reestablish 1860s views that played an integral part in both Battles of Manassas.[97]

1940
Southern portion of Sudley Road is realigned.

The Secretary of the Interior designated 1600 acres of the Bull Run Recreational Area and the former Manassas Battlefield Confederate Park to create Manassas National Battlefield Park. The park was designated a National Historic Site.[98]

NATIONAL BATTLEFIELD PARK, 1940-PRESENT

1940-1941

Relief workers who remained under the recreational demonstration area program removed the Chinn House's weatherboarding as the initial step in its rehabilitation. Unable to undertake a full-scale restoration effort due to World War II, the National Park Service covered the building with tar paper.[99]

1941

A master plan for the recently established Manassas National Battlefield Park laid out roads, trails, and utilities within the Chinn Farm area.[100]

1944-1948

John T Hottel acquired land immediately adjacent to the New York Monuments, and initiated plans to sell suburban home lots. Three interested parties had acquired a total of 37 acres of land and had begun building houses in the Longstreet's Line neighborhood. Park Superintendent Joseph Mills Hanson considered this land to be high priority for acquisition. He had the land appraised and negotiated an option with Hottel to sell a portion of the land to the Park Service. However, the option ran out before NPS obtained the necessary funding.[101]

1948

A National Park Service memorandum written in 1948 described the inadequate preservation efforts undertaken at the house, noting that it had become a seriously compromised structure in a little over 10 years. Wilshin also advised that demolition of the building, which was under consideration at the time, would "have an adverse effect" on Manassas residents.[102]

1950

Inspection revealed that the Chinn House constituted a serious safety hazard, and had become too deteriorated to attempt restoration. The National Park Service removed the wood framing, leaving the two chimneys standing. Within days, severe winds destroyed the east chimney. As it had become apparent that the west chimney would not hold up to continued exposure to the elements, the structure was leveled and the chimneys capped at their foundations.[103]

The New York state legislature authorized donation of the three monuments to the federal government for inclusion in the Manassas National Battlefield Park. However, the parcels containing the monuments were not contiguous with the park's boundary, and transfer of the monuments was delayed until sufficient lands were acquired.[104]

1951
In order to immediately address the poor condition of the abandoned New York Monuments, the New York department of state parks and the New York state land office hired a contractor to clean up the small plots of land and repair the monuments and their surrounding gates and fences.[105]

Critical soil loss areas were identified on Chinn Ridge, particularly on the southeast face of the ridge. Erosion problems are addressed on the crest of Chinn Ridge through disking bare or depleted soil and gullies, harrowing, and leveling the ground surface, followed by reseeding and planting.[106]

1953
July 6. Charles K. Craver et ux., Beulah C. Craver sold 9.6 acres of land adjacent to the New York Monuments to the park for a sum of $24,000. The property included one dwelling and one outbuilding.[107]

October 9. John H. Parrish et ux., Lucille B. Parrish sold 3.9 acres of land adjacent to the New York Monuments to the park for a total of $5,100.[108]

October 12. Joseph A. Nycz et ux., Lois M. Nycz sold 1.0 acre of land adjacent to the New York Monuments to the park for a total of $1,000.[109]

November 2. John T. Hottel et ux., Rose E. Hottel sold 23.63 acres of land adjacent to the New York Monuments to the park for a total of $11,324.25.[110]

mid-1950s
At this time, the 7th Georgia marker is still present along the eastern edge of the study area.[111]

1955
February 7. Joseph W. Patterson et ux., Ruth C. Patterson sold 10.6 acres of land adjacent to the New York Monuments to the park for a total of $15,000. The property included one dwelling and one temporary outbuilding.[112]

December 19. Willis G. Early, Elizabeth F. Early sold 6.9 acres of land adjacent to the New York Monuments to the park for a total of $17,000. The property included one dwelling and one temporary outbuilding.[113]

1956
January 13. John T. Hottel, Rose E. Hottel sold 4.66 acres of land adjacent to the New York Monuments to the park for a total of $7,000. The property included

one dwelling and one temporary outbuilding.[114] This tract commanded the significantly higher price due to its location in a commercially attractive area at the intersection of State Highway 622 and Lee Highway.[115]

1957

Public Law 338 expanded the boundaries for the Manassas National Battlefield Park to include the New York monuments area. It extended the western and northwestern boundaries from the New York monuments to the Sudley Church property, following State Highway 622, and allowed for up to 250 additional acres adjacent to the north and west boundaries.[116]

The National Park Service purchased properties adjacent to the New York monuments from Joseph Patterson and Willis Early. These were the parcels that John Hottel had originally subdivided and sold as housing tracts in 1947. The State of New York deeded the three parcels of land containing the monuments to the federal government in May, 1957.[117]

The Virginia Department of Highways announced that a new interstate highway would be developed connecting west from Washington, D.C. to the Shenandoah Valley, following Lee Highway in Prince William County.[118] Following a successful letter campaign from Civil War Round Tables as far away as England, the state highway commission agreed to consider alternative locations, eventually adopting the present southern route of the interstate.[119]

1958

The National Park Service accepted a donation of 5.8 acres including the three granite monuments from the State of New York into Manassas National Battlefield Park.[120]

1959

Architectural remains of the Chinn House were documented by the Historic American Building Survey (HABS) (see Figure 2-39). [121]

1961

Two parking areas were built on Chinn Ridge, one to the east of the Chinn House remains and the other at the north end of Chinn Ridge Road. The farm road running through Chinn Farm was realigned.[122]

A reenactment of the First Battle of Manassas on the weekend of 21 July caused minor damage to the Chinn Ridge landscape, where heavy usage by camping reenactors necessitated reseeding.[123]

1963

April 4. Lewis Edward Smith, Claudia Pattie Smith sold 6.6 acres of land to the park for a total of $10,000.[124]

1967

A visitor to the site in this year, minister Steadman, recorded the condition of the Hooe Cemetery.[125] In this year, the three remaining Hooe Cemetery headstones were vandalized, leaving only the footstones remaining.[126] Rehabilitation of the stone cemetery walls, which reconstructed the walls to their current mortared condition, was completed before 1980.[127]

1978

The 7th Georgia marker, formerly located north of the Maintenance Access Road on the east side of the study area, was missing by this time.[128]

1979

A Parrott rifle was erected to mark the position of Captain G.F. Leppien's 5th Maine Battery on Chinn Ridge near the Fletcher Webster Monument.[129]

1980

Public Law 96-442 was enacted, allowing the addition of almost 1,500 acres to the park and increasing the park's size by one-third.[130]

1980s

A narrow interpretive viewing corridor was cleared from the Henry Hill visitor center to Chinn Ridge.[131]

1981

Thomas McGarry conducted an archeological survey of the Chinn House and grounds. The survey identified 14 archeological features that convey the function, materiality, and spatial organization of the early plantation.[132]

Manassas National Battlefield Park is listed on the National Register of Historic Places.

1986

May 2. Solite Corporation sold 85.50 acres of undeveloped land in the southwest corner of the study area to the park for $300,000.[133]

December 2. Paul E. Allison et ux. sold 4.0 acres of undeveloped land in the southwest corner of the study area to the park.[134] In exchange for tract 02-172,

the National Park Service conveyed one acre of land near the Sudley Methodist Church to Paul E. Allison et ux., with the payment of $4,000, to be used exclusively for a cemetery.

1988

A series of trailside markers were positioned at key stops in the First and Second Manassas walking and auto tours to provide information to visitors on the significance of specific sites to the two battles.[135] Within the study area, markers were placed along the Chinn Ridge Road, at the Hooe Cemetery, at the Chinn House Foundation, along North Chinn Road, at the 5th and 10th New York Monuments, and at the 14th Brooklyn Monument.

1999-2000

The Hooe Dependency Site was excavated.[136]

Chinn Ridge Road is reduced to a foot path for pedestrians only. The parking lot at the north end is removed.[137] The north entrance to Chinn Ridge from Route 234 is realigned to meet the highway directly across from the Visitor Center driveway. One-way traffic is instituted to the Chinn Farm parking area.[138]

2007

Bernard Hooe Sr.'s new headstone is dedicated and placed in the Hooe Cemetery by the Sons of the American Revolution.[139]

2008

The Parrott rifle on Chinn Ridge was replaced with two 12-pounder Napoleon cannons.[140]

2012

A monument dedicated to the Texas units engaged in the Battle of Second Manassas was placed on Chinn Ridge by the State of Texas near Colonel Webster's monument.[141]

2015

West New York Avenue gate was hit by a car and removed to park storage.[142]

ENDNOTES

1 McGarry and Bohannon, *An Archeological Survey of Selected Portions of Manassas National Battlefield Park,* 7-8.

2 McGarry and Bohannon, *An Archeological Survey of Selected Portions of Manassas National Battlefield Park,* 8.

3 Reeves et. al., *Phase I and II Cultural Resource Investigation and Site Examination of Proposed Intersection Improvements at Routes 29 and 234,* 24.

4 McGarry and Bohannon, *An Archeological Survey of Selected Portions of Manassas National Battlefield Park,* 8.

5 Reeves et. al., *Phase I and II Cultural Resource Investigation and Site Examination of Proposed Intersection Improvements at Routes 29 and 234,* 24-25.

6 Reeves et. al., *Phase I and II Cultural Resource Investigation and Site Examination of Proposed Intersection Improvements at Routes 29 and 234*, 25; cites personal communication with Stephen Potter, 1999.

7 McGarry and Bohannon, *An Archeological Survey of Selected Portions of Manassas National Battlefield Park,* 9.

8 Schiable, *Fencelines, Fields, and Forests: Cultural Landscape Report,* 11.

9 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 23.

10 White, *Rosefield: The History of the John Dogan Farm, Manassas National Battlefield Park, Historic Resource Study*, doctoral thesis, George Mason University, 2012, 2; cites Minor T Weisiger, comp. "Northern Neck Land Proprietary Records,"" The Library of Virginia Research Notes, Number 23 (Richmond, VA, 2002), 1-2.

11 Schiable, *Fence Lines, Fields, and Forests: Cultural Landscape Report,* 11.

12 White, *Rosefield Historic Resource Study*, 2; cites Virginius Dabney, *Virginia: The New Dominion, A History from 1607 to the Present* (New York: Doubleday & Co., 1971), 83.

13 White, *Rosefield Historic Resource Study*, 2; cites Virginius Dabney, *Virginia: The New Dominion, A History from 1607 to the Present* (New York: Doubleday & Co., 1971), 83.

14 Joseph, *Northwest Quadrant Cultural Landscape Inventory*, 3-2.

15 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 24; cites Northern Neck Grants A, 1722-1726, p. 184, Folio (reel 290); and Prince William County map of Northern Neck Grants, DeedMapper4.2 Prince William NNGrants2015.mbl.

16 Joseph, *Northwest Quadrant Cultural Landscape Inventory,* 3-2.

17 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 24; cites Culpeper County Will Book A, pg. 210-211, from abstracts by Ruth and Sam Sparacio.

18 White, *Rosefield Historic Resource Study,* 5; cites Prince William County Land Tax Records, 1788-1793, microfilm.

19 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 24; cites Culpeper County Will Book A, pg. 210-211, from abstracts by Ruth and Sam Sparacio; PWC Deed Book Q, p. 21-25; and PWC Deed Book R, p. 59-62.

20 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 25; cites PWC Deed Book R, 59-62.

21 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 40.

22 White, *Rosefield Historic Resource Study*, 12; cites Netti Schreiner-Yantis and Florene Speakman Love, comp. "Prince William County Personal Property Tax 1787 – List A." The 1787 Census of Virginia (Springfield: Va.: Genealogical Books in Print, 1976), 890.

23 Reeves et. al., *Phase I and II Cultural Resource Investigation and Site Examination of Proposed Intersection Improvements at Routes 29 and 234,* 46.

24 White, *Rosefield Historic Resource Study*, 12; cites Prince William County Deed Book Y, 1791-1796; PWC Land Tax, 1794.

25 Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 3-6; cites Steadman Letter, 1967, MANA files.

26 Joseph, *Northwest Quadrant Cultural Landscape Inventory*, 3-2; cites Prince William County Deed Book 1:44 and 1:36; and *Historic Structures Report* (HSR) for the Dogan House. Joseph notes that the HSR indicates that Henry Dogan had a warrant for 100 acres issued to him Dec. 22, 1783, but no additional information has been found regarding this acreage.

27 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 19, 26-27.

28 Joseph, *Northwest Quadrant Cultural Landscape Inventory*, 3-7; cites Prince William County Will Book M:226.

29 Joseph, *Northwest Quadrant Cultural Landscape Inventory*, 3-4; cites 1815 plat map of Wormley Carter estate, Prince William Land Causes Book 3, 65-70.

30 Reeves et. al., *Phase I and II Cultural Resource Investigation and Site Examination of Proposed Intersection Improvements at Routes 29 and 234,* 103-106.

31 White, *Rosefield Historic Resource Study,* 13; cites Prince William County Will Book K: 440, microfilm.

32 Joseph, *Northwest Quadrant Cultural Landscape Inventory*, 3-7; cites Prince William County Will Book M:266.

33 Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 3-4; cites Francis Wilshin, *The Stone House: Embattled Landmark of Bull Run Part 1 Narrative and Appendix* (1961), 64.

34 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 27; cites Will Book M:350.

35 "Hazel Plain," *Alexandria Gazette*, December 30, 1831, accessed January 2018, http:www.pwcvirginia.com/documents/1HazelPlain.pdf.

36 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 28.

37 Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 3-6 and 3-7; cites Hazel Plain ownership from Wilshin Memorandum March 25, 1948, MANA files.

38 White, *Rosefield Historic Resource Study,* 23; cites PWC Deed Book 19:55-56, microfilm. As indicated by White, the land deeds regarding Rosefield are somewhat unclear. While Hamilton sold the property to her aunt Ann H. Edwards in 1843, it remained in Robert Hamilton's name on land tax rolls until 1846 when it appeared in John Dogan's name. The deed of sale between Hamilton and Edwards does not specify the number of acres involved

39 White, *Rosefield Historic Resource Study,* 24; cites PWC Deed Book 18: 76, microfilm.

40 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 28.

41 White, *Rosefield Historic Resource Study,* 23; cites PWC Deed Book 19:55-56, microfilm.

42 Quinn Evans Architects, *Unfinished Railroad Cultural Landscape Report,* 1.5; cites Ronald D. Howe and Richard Sacchi, "Manassas Gap Railroad Independent Line," National Register Nomination (Washington, DC: US Department of the Interior, National Park Service, 1999), Section 8, 4-5.

43 Quinn Evans Architects, *Unfinished Railroad Cultural Landscape Report,* 1.9; cites Howe and Sacchi, "Manassas Gap Railroad Independent Line," National Register Nomination, Section 8, 8-17.

44 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 28; cites 1850 Federal Census; Manassas National Jubilee of Peace 1911, 128.

45 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 20.

46 "Abstract of Title to a tract of parcel of land, lying and being situate at Groveton...", Item 2, 01-158 John T. Hottel, MANA Property Records.

47 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 20.

48 Schiable, *Fence Lines, Fields, and Forests: Cultural Landscape Report,* 12.

49 Schiable, *Fence Lines, Fields, and Forests: Cultural Landscape Report,* 12.

50 Treischmann, "Manassas Battlefield Historic District, Prince William County, Virginia," 50-51 and Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 3-14; cites Bearss, *Historical Report: Troop Movement Maps: Battle of First Manassas and Engagement at Blackburn's Ford*.

51 Trieschmann, "Manassas Battlefield Historic District, Prince William County, Virginia," 50-51.

52 Bearss, *Historical Report: Troop Movement Maps: Battle of First Manassas and Engagement at Blackburn's Ford*, 1-12.

53 Bearss, *Historical Report: Troop Movement Maps: Battle of First Manassas and Engagement at Blackburn's Ford*, 120-121.

54 Schiable, *Fence Lines, Fields, and Forests: Cultural Landscape Report,* 14; and Bearss, *Historical Report: Troop Movement Maps: Battle of First Manassas and Engagement at Blackburn's Ford,* 96, 72-74, 81-82 and 84-85.

55 Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 3-14; cites Bearss, *Historical Report: Troop Movement Maps: Battle of First Manassas and Engagement at Blackburn's Ford*.

56 Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 3-14; cites Bearss, *Historical Report: Troop Movement Maps: Battle of First Manassas and Engagement at Blackburn's Ford*.

57 Schiable, *Fence Lines, Fields, and Forests: Cultural Landscape Report,* 16; Trieschmann, "Manassas Battlefield Historic District, Prince William County, Virginia," 54-55.

58 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 30.

59 Schiable, *Fence Lines, Fields, and Forests: Cultural Landscape Report,* 16 .

60 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 30.

61 Trieschmann, "Manassas Battlefield Historic District, Prince William County, Virginia." National Register of Historic Places Registration Form, 7.

62 Trieschmann, "Manassas Battlefield Historic District, Prince William County, Virginia," 7.

63 Trieschmann, "Manassas Battlefield Historic District, Prince William County, Virginia," 7.

64 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 31.

65 Oeschger, *Chinn Ridge Cultural Landscape Inventory*; cites Alexandria Gazette, June 7, 2871; and Hazel Plain chain of title pwcvirginia.com

66 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 21.

67 "Abstract of Title to a tract of parcel of land, lying and being situate at Groveton...", 01-158 John T. Hottel, MANA Property Records.

68 White, *Rosefield Historic Resource Study,* 55; cites Turner. Burial Index, 1800-2001, 91.

69 Joseph, *Northwest Quadrant Cultural Landscape Inventory*, 3-23.

70 White, *Rosefield Historic Resource Study,* 55; cites PWC Deed Book 31:459, microfilm.

71 White, *Rosefield Historic Resource Study,* 58; cites PWC Deed Book 33:342, microfilm.

72 White, *Rosefield Historic Resource Study,* 58; cites PWC Deed Book 39:572-573,

microfilm.

73 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* , 31-32; cites 1880 Federal Census.

74 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* , 31-32.

75 "Abstract of Title to a tract of parcel of land, lying and being situate at Groveton..."item 7, 01-158 John T. Hottel, MANA Property Records.

76 White, *Rosefield Historic Resource Study,* 60; cites PWC Will Book U: 272-274, microfilm.

77 Peter W. Ostrander, *Story of the Dedication of the Monument to the Memory of the Members of the "Fourteenth Brooklyn" Regiment, who fell on the Bull-Run battles' field*, Fourteenth Regiment War Veterans' Association, 1907, on file at Manassas National Battlefield Park, 9.

78 Tish Como, "Effects of the 1904 Army Maneuvers on the Greater Manassas Community," Prince William County RELIC, accessed December 2017, http://eservice.pwcgov.org/library/digitalLibrary/Map-1904/PWR_1-2010.pdf.

79 "7th Georgia Regiment Position Markers at Manassas National Battlefield Park," undated manuscript on file at Manassas National Battlefield Park; and Gregory Wolf, "The Hidden Marker for the 7th Georgia Infantry," American Battlefields Trust, accessed December 2017, https://www.civilwar.org/learn/articles/hidden-marker-7th-georgia-infantry.

80 Laws of New York, 1906, chapter 667; Laws of New York, chapter 666; and Laws of New York, 1905, chapter 671; cited by Ostrander, *Story of the Dedication of the Monument to the Memory of the Members of the "Fourteenth Brooklyn" Regiment, who fell on the Bull-Run battles' field*, 5.

81 Ostrander, *Story of the Dedication of the Monument to the Memory of the Members of the "Fourteenth Brooklyn" Regiment, who fell on the Bull-Run battles' field*; and Zenzen, *Battling for Manassas*, Chapter 1.

82 Reeves et. al., *Phase I and II Cultural Resource Investigation and Site Examination of Proposed Intersection Improvements at Routes 29 and 234,* 42; cites PWCDB 55:487.

83 "Abstract of Title to a tract of parcel of land, lying and being situate at Groveton..." 01-158 John T. Hottel, MANA Property Records.

84 Col. Fletcher Webster Monument plaque; and Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 3-24, 3-25, 4-48.

85 "Abstract of Title to a tract of parcel of land, lying and being situate at Groveton...", Items 16 and 17, 01-158 John T. Hottel, MANA Property Records.

86 Zenzen, *Battling for Manassas,* Chapter 2.

87 Zenzen, *Battling for Manassas,* Chapter 2b.

88 Joseph, *Northwest Quadrant Cultural Landscape Inventory*, 3-34; cites *Prince William: The Story of Its People and Places* (Writers Program of the Work Projects Administration in the State of Virginia, The Bethlehem Good Housekeeping Club, 1941), 68.

89 "Abstract of Title to a tract of parcel of land, lying and being situate at Groveton...", Item 19, 01-158 John T. Hottel, MANA Property Records.

90 Zenzen, *Battling for Manassas,* Chapter 2b.

91 Zenzen, *Battling for Manassas,* Chapter 2b-2c.

92 *Final Report, Bull Run Battlefield Recreational Demonstration Project, Virginia R-6, Manassas, Virginia* (US Department of the Interior, National Park Service, 1935).

93 Zenzen, *Battling for Manassas*, Appendix VI.

94 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 32; cites McGarry, 1981

95 *Structural Bracing for the Chinn House*, drawing, Department of the Interior,

National Park Service, Recreational Demonstration Projects, 1937, on file at NPS TIC; and *Sketches Showing Location and Nature of Damages Requiring Emergency Measures*, drawing, Department of the Interior, National Park Service, Recreational Demonstration Projects, 1936, on file at NPS TIC.

96 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 43.

97 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 33; cites Zenzen 1998:21

98 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 33.

99 Zenzen, *Battling for Manassas*, Chapter 4b; cites Francis F. Wilshin to Superintendent, 25 March 1948, 2, file 620 Buildings Chinn House, box 2596C, entry 7, RG 79, NARA; Wilshin to Regional Director, Southeast Regional Office (SERO), 28 October 1968, file Chinn House, Chinn Family History, Historian's Files, MNBP.

100 *General Development Plan, Part of the Master Plan for Manassas National Battlefield Park,* 1941, on file at MANA Archives.

101 Zenzen, *Battling for Manassas*, Chapter 4a; cites Thomas Allen to Superintendent, Fredericksburg and Spotsylvania County National Military Park, 2 February 1945; Joseph Mills Hanson to E. M. Lisle, 4 October 1945; Hanson to Regional Director, Region 1, 9 December 1946; Hanson to Coordinating Superintendent, 9 August 1947; Hanson to Coordinating Superintendent, 14 August 1947, all in file Monuments and Markers N.Y. Monuments and Land Acquisition, Historian's Files, MNBP. According to the land ownership records at the park, Rush W. Boyer conducted an appraisal in 1946 for the Hottel and individual home tracts. See Land Ownership Records Manassas, MNBP Land Holding Records, Headquarters Files, MNBP.

102 Zenzen, *Battling for Manassas*, Chapter 4b; cites Francis F. Wilshin to Superintendent, 25 March 1948, 2; Wilshin to Regional Director, SERO, 28 October 1948, both in file 620 Buildings Chinn House, box 2596C, entry 7, RG 79, NARA.

103 Zenzen, *Battling for Manassas*, Chapter 4a ; cites Arthur McGlothlin to Charles Stevenson, 1 June 1951; James B. Myers to Regional Director, Region 1, 30 November 1951; Conrad Wirth to Regional Director, Region 1, 2 June 1952; Wirth to James Evans, 11 August 1952, all in file Monuments and Markers N.Y. Monuments and Land Acquisition, Historian's Files, MNBP.

104 Zenzen, *Battling for Manassas*, Chapter 4a; cites Conrad Wirth to James Evans, 15 February 1950, and Harold L. Peterson, "Draft of Speech for Senator Ives," 1 March 1949; Newton Drury to Charles Stevenson, 15 May 1950, all on file MNBP N.Y. Monuments 1949-1957, NPS History Division Files; Conrad Wirth to Regional Director, Region 1, 18 May 1950, "New York State Monuments and Possible Land Acquisition at Manassas"; James Evans to Arthur McLoughlin, 15 August 1950, both in file Monuments and Markers N.Y. Monuments and Land Acquisition Historian's Files, MNBP; Sarles, "Short History," 19.

105 Zenzen, *Battling for Manassas*, Chapter 4a ; cites Arthur McLoughlin to Charles Stevenson, 1 June 1951; James B. Myers to Regional Director, Region 1, 30 November 1951; Conrad Wirth to Regional Director, Region 1, 2 June 1952; Wirth to James Evans, 11 August 1952, all in file Monuments and Markers N.Y. Monuments and Land Acquisition, Historian's Files, MNBP.

106 *Soil and Moisture Conservation Plan*, part of the Master Plan for Manassas National Battlefield Park, 1951, on file at TIC.

107 Zenzen, *Battling for Manassas*, Appendix VI.

108 Zenzen, *Battling for Manassas*, Appendix VI.

109 Zenzen, *Battling for Manassas*, Appendix VI.

110 Zenzen, *Battling for Manassas*, Appendix VI.

111 Jim Burgess, Museum Specialist, Manassas National Battlefield Park, personal communication with author, January 1, 2018.

112 Zenzen, *Battling for Manassas*, Appendix VI.

113 Zenzen, *Battling for Manassas*, Appendix VI.

114 Zenzen, *Battling for Manassas*, Appendix VI.

115 Zenzen, *Battling for Manassas*, Chapter 4d ; cites Land ownership records for Hottel tract, 2 November 1953; Patterson tract, 7 February 1955; Early tract, 19 December 1955; Hottel tract, 13 January 1956, all in Land Ownership Records Manassas, MNBP Land Holding Records, Headquarters Files, MNBP.

116 Zenzen, *Battling for Manassas*, Chapter 4d ; cites P.L. 338.

117 Zenzen, *Battling for Manassas*, Chapter 4d ; cites Land ownership records for Hottel tract, 2 November 1953; Patterson tract, 7 February 1955; Early tract, 19 December 1955; Hottel tract, 13 January 1956, all in Land Ownership Records Manassas, MNBP Land Holding Records, Headquarters Files, MNBP.

118 Zenzen, *Battling for Manassas*, Chapter 5c; cites Wilshin, interview, 56-57; Elbert Cox to the Director, 19 March 1957, file Manassas Correspondence 1949-57, NPS History Division Files; "Francis Wilshin," Journal Messenger (Manassas), 7 March 1957, file Park History I-66 Road Placement, Historian's Files, MNBP.

119 Zenzen, *Battling for Manassas*, Chapter 5c; cites Francis F. Wilshin to Regional Director, Region 1, 16 January 1958, file D30 Manassas 1957, box 1, acc. 68A-2955, WNRC; Wilshin, interview, 59-60.

120 Zenzen, *Battling for Manassas*, Appendix VI.

121 Historic American Buildings Survey, *Chinn House (remains)*, Groveton, Prince William County, VA, 1959.

122 Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 3-31.

123 Zenzen, *Battling for Manassas*, Chapter 5f; cites "Remarks by Conrad L. Wirth Director, National Park Service, at the Re-Enactment of the First Battle of Manassas at Manassas National Battlefield Park, Virginia, July 22, 1961," Department of the Interior press release, 22 July 1961, box MANA, NPS History Collection, HFC; Conrad Wirth to Regional Director, Regions 1, 14 August 1961, "Re-enactment of Civil War and Other Battles," file Manassas Correspondence 1958-61, NPS History Division Files Bodnar, Remaking America, 214-15.

124 Zenzen, *Battling for Manassas*, Appendix VI.

125 Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 4-88; cites Steadman letter, 1967, MANA files.

126 Jim Burgess, Museum Specialist at Manassas National Battlefield Park, included in National Park Service, *Chinn Ridge Cultural Landscape Inventory*.

127 Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*; cites Wilshin, 1967.

128 Jim Burgess, Museum Specialist, Manassas National Battlefield Park, personal communication with author, January 1, 2018.

129 Jim Burgess, Museum Specialist, Manassas National Battlefield Park, personal communication with author, January 1, 2018.

130 Zenzen, *Battling for Manassas*, Chapter 8c; cites Public Law 96-442, 96th Cong., 2d sess., 13 October 1980, An Act to Amend the Act Entitled "An Act to Preserve Within Manassas National Battlefield Park, Virginia, the Most Important Historic Properties Relating to the Battle of Manassas, and for Other Purposes," approved April 17, 1954; Regional Director, National Capital Region, to Superintendent, Manassas Battlefield Park, 9 January 1981, "Activation of Public Law 96-442 Expanding Manassas Battlefield Park," 4, file Land Acquisition Plan-MANA, NCR Land Use Files; Senate Committee, Manassas National Battlefield Park, Virginia, 52-53,70.

131 Parsons, *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*, 4-17.

132 McGarry, *Manassas Historic Sites Survey*.

133 Zenzen, *Battling for Manassas*, Appendix VI.

134 Zenzen, *Battling for Manassas*, Appendix VI.

135 Zenzen, *Battling for Manassas*, Chapter 9a; cites Edwin C. Bearss to Associate Director, Cultural Resources, 12 October 1983, "Field Trip to Manassas National Battlefield Park," 3, unlabeled folder, NPS History Division Files; Swain, interview, 19; [Rolland R. Swain], "Superintendent's Annual Report," 1986, 4, Reading File 1987, MNBP.

136 Reeves et. al., *Phase I and II Cultural Resource Investigation and Site Examination of Proposed Intersection Improvements at Routes 29 and 234,* 103-106.

137 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 34.

138 Ray Brown, interview with author, March, 2018.

139 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 39.

140 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 34.

141 Oeschger, *Chinn Ridge Cultural Landscape Inventory,* 53.

142 Ray Brown, interview with author, October 2017.

TREATMENT ALTERNATIVES

APPENDIX B

Chapter title page: View from crest of Chinn Ridge southwest toward Chinn house, 1904 (Prince William County RELIC Online) .

Appendix B: Treatment Alternatives

This appendix presents treatment alternatives for the preservation and rehabilitation of the cultural landscape at the Chinn Ridge study area. The alternatives were developed through a collaborative process including the consulting team, Manassas National Battlefield Park staff, and NPS National Capital Regional Office staff. Following development of the Vision and Goals described in Chapter 4, and confirmation of management issues related to the project area during meetings in October 2017 and March 2018, the consulting team developed preliminary treatment alternatives and provided them to NPS prior to a treatment workshop held on May 1, 2018. The alternatives served as a basis for collaboration during the workshop and group site walk. A webinar followed the workshop to integrate guidance from additional NPS staff. The result was agreement on preferred treatment for aspects of the landscape, and the need for options to be further developed and considered for four specific topics. Chapter 5 of this report covers recommended treatment for aspects identified as preferred by the NPS.

This appendix includes an overview of all of the three project area treatment alternatives developed. Alternative 3 was selected as the preferred treatment and is fully described in Chapter 5.

Based on the webinar following the workshop, five additional feature-level alternatives were developed for specific topics and are presented in this Appendix. For these, optional approaches to treatment and the advantages and disadvantages of each are described. These include:

1. Accessible route on Chinn Ridge
2. Parking at Chinn Farm
3. Accessible Route to Hooe Cemetery
4. Representation of Chinn House
5. Representation of Chinn Farm Fences

The preferred treatments for these topics were determined during a conference call on July 18, 2018, attended by NPS-NCR and Manassas National Battlefield staff. For each of these feature-level alternatives, the preferred alternative has been integrated into the treatment plan presented in Chapter 5.

PROJECT AREA TREATMENT ALTERNATIVES

Development of the NPS preferred treatment for the Chinn Ridge project area landscape began with consideration of two preliminary rehabilitation alternatives. Both shared preservation of contributing features, rehabilitation of missing views, and clarification of missing elements that enhance understanding of spatial organization, circulation, and historic use of the site. Main differences between the alternatives are related the emphasis of future landscape condition as it relates to supporting interpretation of the battles.

Alternative 1 emphasizes rehabilitation to present a landscape that enhances understanding of Civil War and Commemoration conditions associated with specific military actions (see Figure B-1). Specific visual connections are rehabilitated to enhance understanding of key military movements:

- View along Chinn Ridge related to First and Second Manassas. In both battles, Confederate troops advanced along Chinn Ridge, pushing Union troops toward Sudley Road.
- View between Chinn Ridge and Henry Hill related to First Manassas and Second Manassas. In both battles, this was an important critical connection between the Union troops on Chinn Ridge and their counterparts on Henry Hill.
- View between Chinn Ridge and Chinn Branch/Bald Hill related to First Manassas. In the last phase of the battle, Confederate troops advanced from positions along Chinn Branch to displace Union troops from the ridge.
- View between Chinn Ridge and Stone House Intersection/ Buck Hill related to First Manassas. Union troops retreated from Chinn Ridge to toward the intersection and hill as the Confederates advanced at the end of the battle.
- View between 14th Brooklyn Monument and Groveton related to Second Manassas. On the second day of the battle, an intense skirmish took place between Union troops positioned on the hill and Confederate troops to the west.
- View between 14th Brooklyn Monument and 5th and 10th New York Monuments related to Second Manassas. On the final day of the battle, Union regiments positioned along the Warrenton Turnpike and the ridge now occupied by the 5th and 10th New York Monuments were devastated by the advancing Confederate line. When the monuments now occupying the high points were placed in 1906, they were arranged in a group so that each monument was visible from the other two.
- View between New York Monuments and Chinn Ridge related to Second Manassas. On the final day of the battle, Union troops positioned on Chinn Ridge saw the advancing Confederate charge as the Union troops to the west were cut down.

Alternative 2 emphasizes broad landscape patterns associated with pre-Civil War plantation, Civil War, and Commemoration, eras throughout the study area (see Figure B-2). In addition to rehabilitating key views that aid the visitor in understanding the battles, this alternative proposes expanded rehabilitation of open fields and fencing patterns to more fully express the character and spatial organization of the landscape present during all three periods of significance. In this alternative, the missing three dimensional form of the Chinn House would be rehabilitated to provide a marker on the landscape representative of this once-prominent feature, and the outlines of missing outbuildings would indicate other structures that were historically present on the landscape.

These served as a basis for collaborative development of a third alternative that is the foundation of the NPS preferred treatment presented in Chapter 5. **Alternative 3,** the NPS preferred alternative, emphasizes a balanced approach between rehabilitating key visual connections that support understanding of the battle movements and historic spatial organization, while maintaining a buffer between the study area and modern development that may impact the historic character (see Figure B-3).

The following section describes the three broad treatment alternatives for the overall project area. It begins with a list of treatment tasks that are common to all three alternatives. Next are descriptions of the unique tasks associated with alternatives 1, 2 and 3.

Treatments Common to All Alternatives:

Natural Systems and Topography

- Preserve contributing features
- Repair erosion at stream banks along Youngs Branch and Chinn Branch according to treatment recommendations in Chapter 5 and best management practices in Chapter 6.

Land Use

- Work with municipalities and property owners to encourage sensitive future development and retain or increase vegetative buffers.
- Continue to work with VDOT as part of mitigation for the I-66 project. Consider requesting development of a view model to evaluate the potential impacts of the proposed highway changes on the park. If it is determined that the new highway will affect the CLR project study area, it may be necessary to adjust treatment recommendations to respond to this finding.
- Continue to maintain the one-acre Fletcher Webster inholding and preserve the Fletcher Webster Monument and Texas Monument.

Spatial Organization

- Preserve aspects of spatial organization that contribute to the historic significance of the study area including organization of Chinn Farm (Hazel Plain) plantation and cluster of three monuments at New York Monuments area

Buildings and Structures

- Preserve contributing Chinn House Foundation and Maintenance Storage Building.
- Undertake a comprehensive assessment of the stonework at the Chinn House foundation, Hooe cemetery wall, and Chinn Drive culverts according to Secretary of the Interior Standards. Based on the assessment, develop maintenance and monitoring protocols to conserve the resources.
- If the Webster inholding is acquired by the park, consider moving the Texas monument to a new location, as it was installed after the period of significance and does not contribute to the integrity of the historic landscape.

Circulation

- Work with Virginia DOT to improve trail crossings at Lee Highway / Sudley Road intersection and Lee Highway/Groveton Road intersection.
- Preserve contributing circulation routes by maintaining roads and trails that follow historic routes. Contributing vehicular circulation routes are: New York Avenue, North Chinn Drive, South Chinn Drive, Maintenance Access Road (see Chapter 3). Contributing pedestrian routes are the Chinn Ridge Trail and segments of the Second Manassas Trail that follow historic farm roads (see Chapter 3).
- Rehabilitate paving on historic circulation routes in selected areas to provide visual cues that help visitors identify historic road locations.
- Provide barrier-free route to 5th and 10th New York Monuments.

Constructed Water Features

- Preserve contributing features.

Small-scale Features and Objects

- Preserve contributing features
- Install missing 5th New York Gate.
- Construct new worm fences in historic locations and remove worm fences in historic locations as directed in Fields, Fencelines, and Forests CLR.

Views

- Maintain woodland as a visual buffer between study area and existing/ potential development along the south and west sides of the study area.
- Modify vegetation to rehabilitate:
    - View along Chinn Ridge related to First and Second Manassas.

- View between Chinn Ridge and Henry Hill related to First Manassas and Second Manassas.
- View between Chinn Ridge and Chinn Branch/Bald Hill related to First Manassas.
- View between Chinn Ridge and Stone House Intersection/ Buck Hill related to First Manassas.
- View between 14th Brooklyn Monument and Groveton related to Second Manassas.
- View between 14th Brooklyn Monument and 5th and 10th New York Monuments related to Second Manassas.
- View between New York Monuments and Chinn Ridge related to Second Manassas.

Vegetation

- Preserve contributing individual trees
- Maintain oak-hickory forest in areas historically occupied by woodlots
- Maintain hay lease within the study area

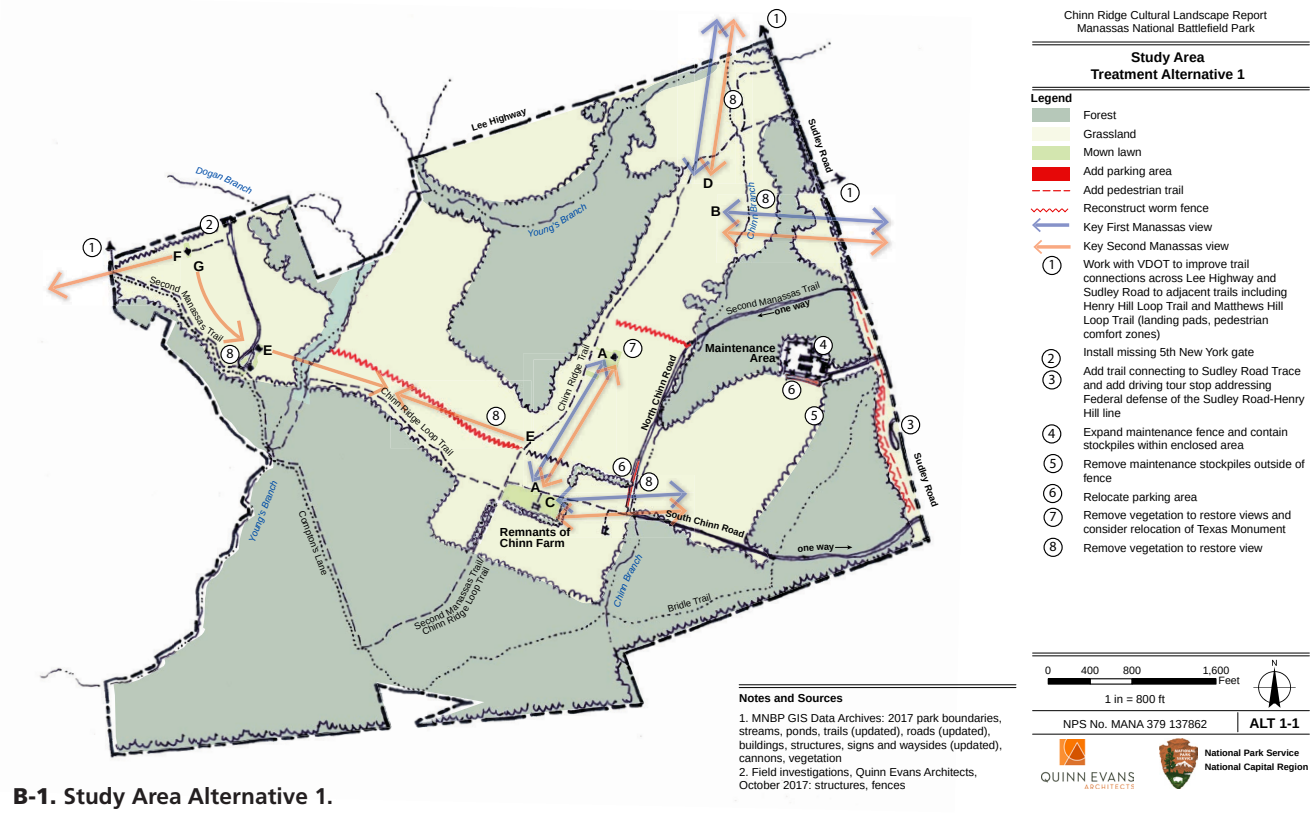
Archeological Sites

- Preserve contributing features

Study Area Alternative 1

Alternative 1 emphasizes rehabilitation to present a landscape that displays Civil War and Commemoration conditions associated with specific military movements (see Figure B-1).

- Clear woody vegetation to reestablish views associated with key military actions during First and Second Manassas
- Add trail connections to Henry Hill Loop Trail and Matthews Hill Loop Trail
- Add trail connecting from North Chinn Road to Sudley Road trace. Add driving tour stop near Sudley Road trace.
- Relocate parking lot impacting views along Chinn Ridge
- Work with archeologists to stabilize ground-level building remnants at Chinn Farm and enhance visibility of remaining features

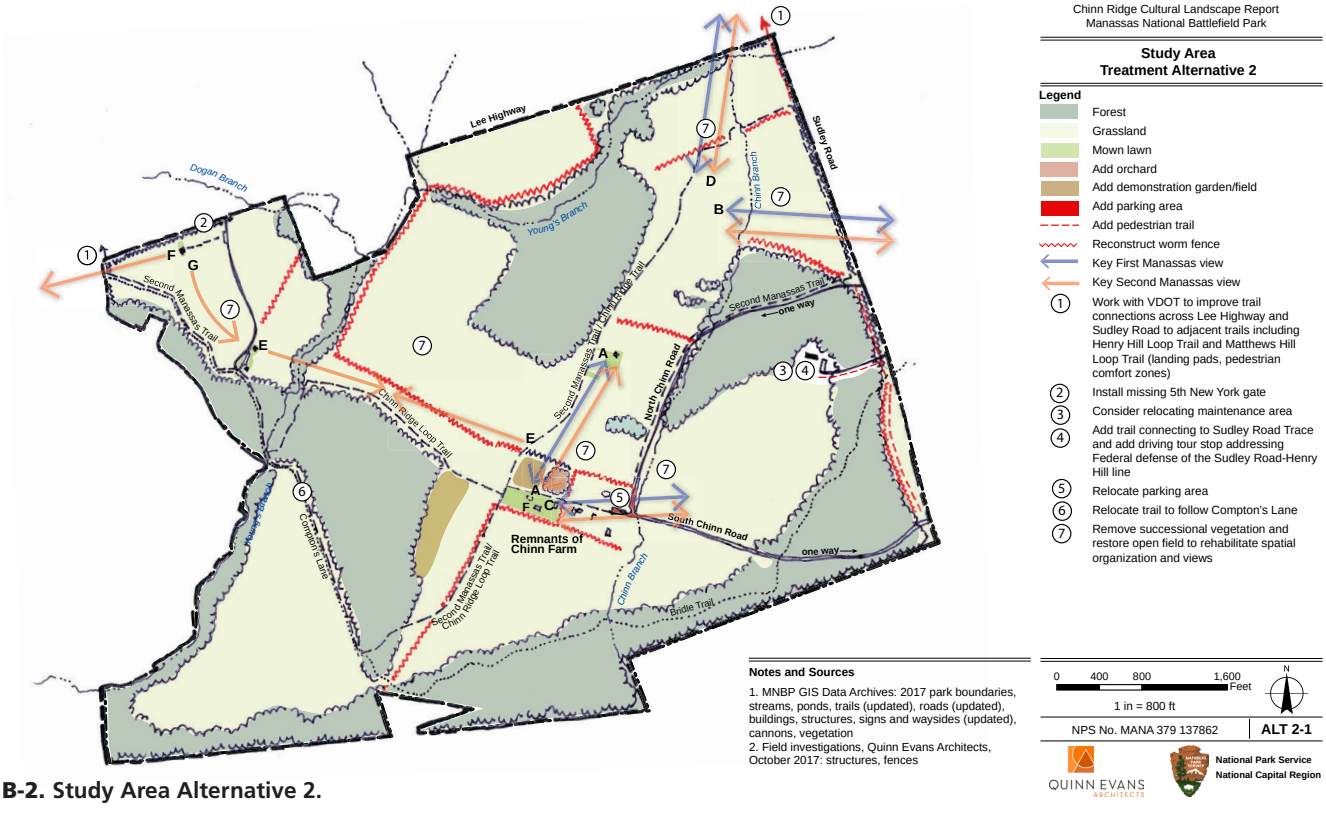


B-1. Study Area Alternative 1.

Study Area Alternative 2

Alternative 2 emphasized broad landscape patterns associated with pre-Civil War plantation, Civil War, and Commemoration eras throughout the study area (see Figure B-2).

- Expand clearings to historic extent while retaining visual buffer from modern development
- Construct fences in historic locations (in addition to those specified in FFF CLR)
- Represent three-dimensional form of missing Chinn House.
- Work with archeologists to stabilize and protect building remnants at Chinn Farm. Represent missing buildings at Chinn Farm at ground level.
- Relocate parking lot impacting spatial organization of Chinn Farm and views along Chinn Ridge
- Consider relocating maintenance area.
- Add trail connecting from North Chinn Road to Sudley Road Trace. Add driving tour stop near Sudley Road trace. If maintenance area is moved, use site of maintenance area for parking lot.
- Relocate Second Manassas trail to follow Compton's Lane
- Add demonstration garden or crop field in location of historic garden/ crop field.
- Add orchard in location of historic orchard.

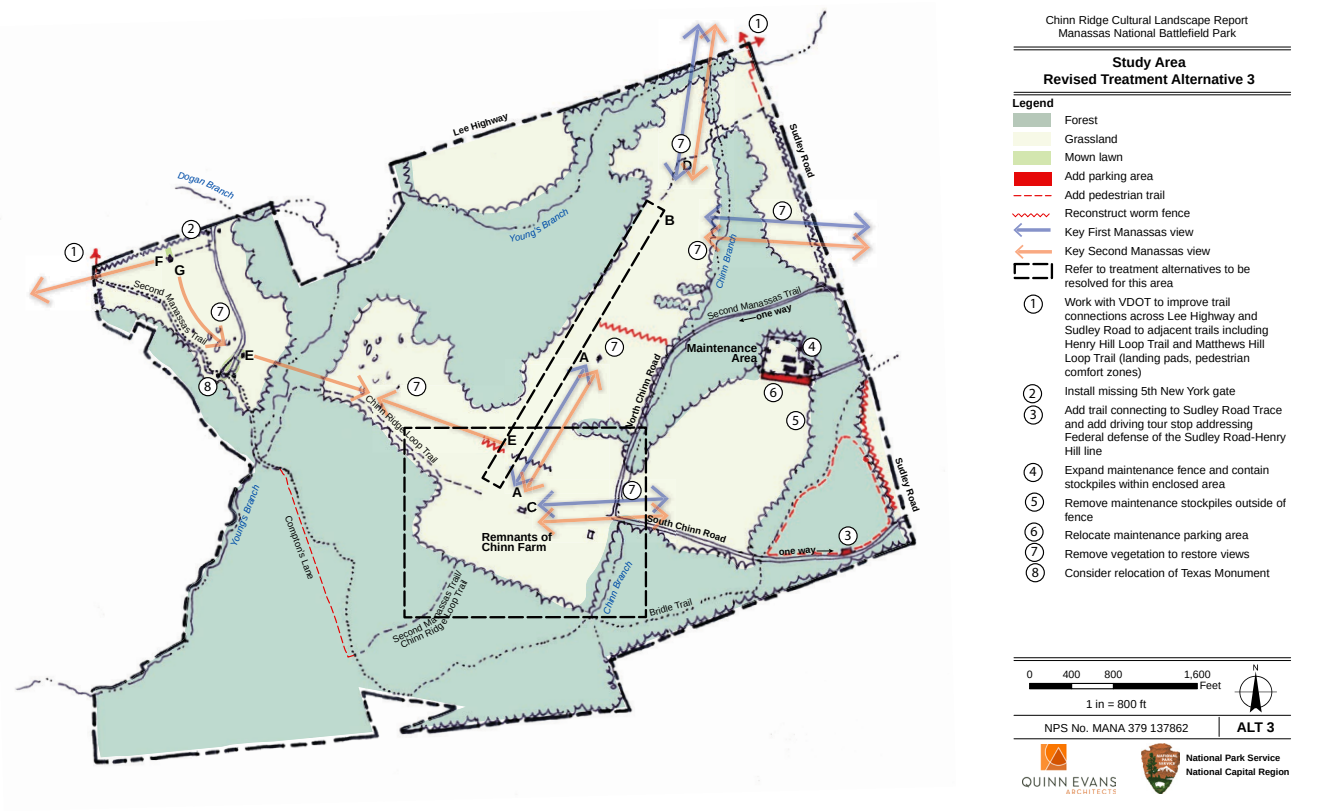


B-2. Study Area Alternative 2.

Study Area Alternative 3 (Preferred)

Following the workshop, aspects of both preliminary treatment alternatives were refined to develop revised treatment alternative 3 (see Figure B-3). This alternative was refined through a follow-up call on 10 May 2018 to develop the recommended treatment presented in Chapter 5 of this report.

- Define extent of maintenance area by expanding fenced area and relocating stockpiled materials to within fence.
- Relocate hiking trail to Compton's Lane. Maintain bridle trail as separate route on existing trail.
- Provide loop trail from South Chinn Drive to Sudley Road grade for interpretation of final Union position at Second Manassas.
- Provide a walking surface on the shoulder of North Chinn Drive or designated lane on the side of the road for hikers.
- Clear vegetation to open fields to restore key vegetation, spatial organization and historic character as well as key views related to historic battle maneuvers, including:
    - Chinn Ridge to Henry Hill
    - Chinn Ridge to Stone House
    - Chinn Ridge to New York Monuments
    - Chinn Ridge to Bald Hill/Stone House Intersection
    - 5th and 10th New York Monuments to 14th Brooklyn Monument
    - Axial view along Chinn Ridge toward Chinn Farm
- Retain existing woodlands to the south and west of Chinn Farm area as a visual buffer.
- Retain existing woodlands adjacent to McGlothlin property as a visual buffer.
- Install site identification signs in locations easily visible from the road for both the New York Monuments area and Chinn Farm.
- Add a wayside near the Sudley Road grade interpreting final Union position at Second Manassas.
- If Webster inholding is acquired by park, consider moving Texas monument to a new location near the New York Monuments.



B-3. Study Area Alternative 3.

FEATURE-LEVEL TREATMENT ALTERNATIVES

Circulation Corridor Along Chinn Ridge

Currently access to key locations within the study area is not barrier-free. Improvement of access along Chinn Ridge is a high priority. Options to achieve this include improving the existing asphalt path along the ridge and re-establishing a vehicular route on Chinn Ridge, reflecting conditions during the period of commemoration.

The existing route on Chinn Ridge is a 5-foot wide asphalt walkway that slopes at 1.0% along the southern part of the ridge and then the grade increases to 1.5% as near the Col. Fletcher Webster Monument (see Figure B-4).

Option A retains a pedestrian trail along the route of the CCC-era road (see Figure B-5). In this alternative, the surface of the existing 5-foot wide asphalt walkway would be repaired to provide a barrier-free route. Regrading would not be required. The adjacent gravel shoulder would be repaired to continue to provide maintenance and emergency access.

Advantages of the Option A include:

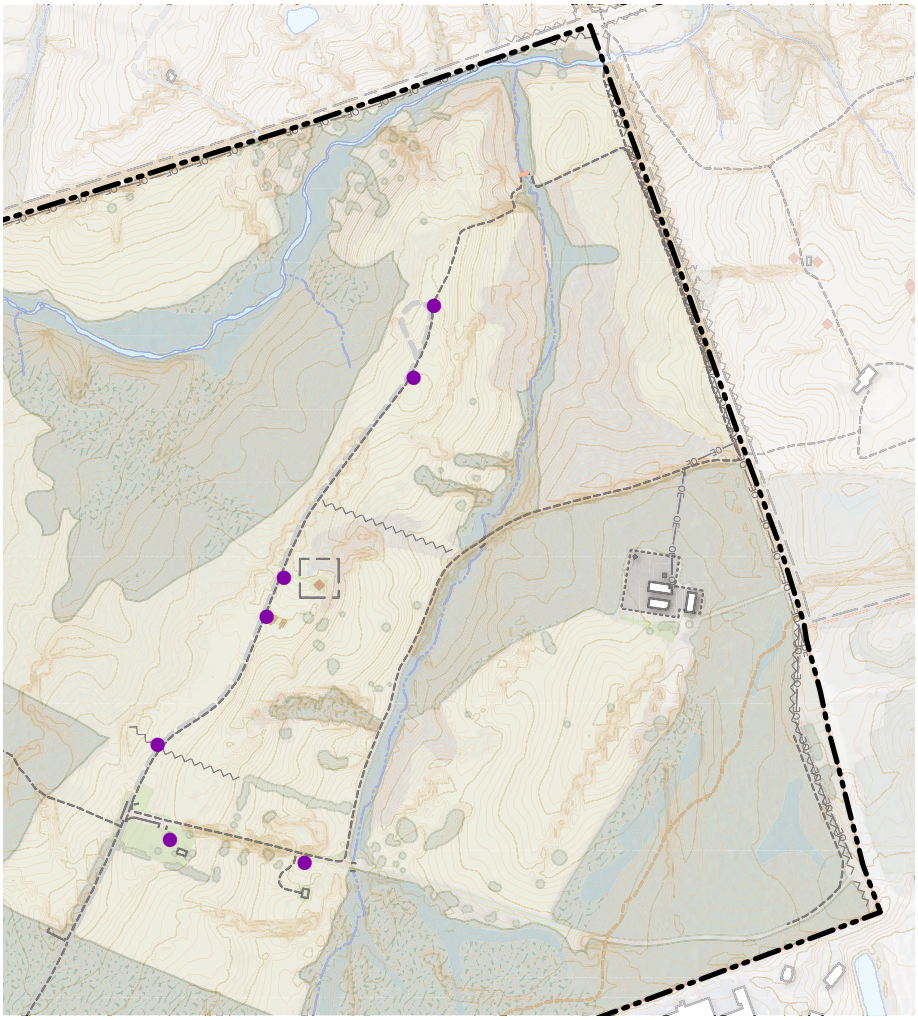
- The trail provides a pleasant walk along the ridge that is not interrupted by vehicles. The trail is relatively flat, and with can be repaired to meet requirements as a barrier-free route.
- The vehicular route on Chinn Ridge had been modified to a pedestrian trail in response to law enforcement concerns. The road led to a secluded parking area not visible from public roads that attracted illegal activity. Removal of the road has relocated these activities away from Chinn Ridge.

Disadvantages of the Option A include:

- Most visitors access park resources by car, and do not walk to the northern end of the trail. These visitors do not access interpretive information relating to First Manassas.
- The trail is 3,125 feet long, which even when in good repair, is a distance that many visitors with mobility challenges cannot traverse.

Following the July 18, 2018 discussion, Option A was selected as the preferred treatment.

B-4. Option A: Existing pedestrian route on Chinn Ridge.



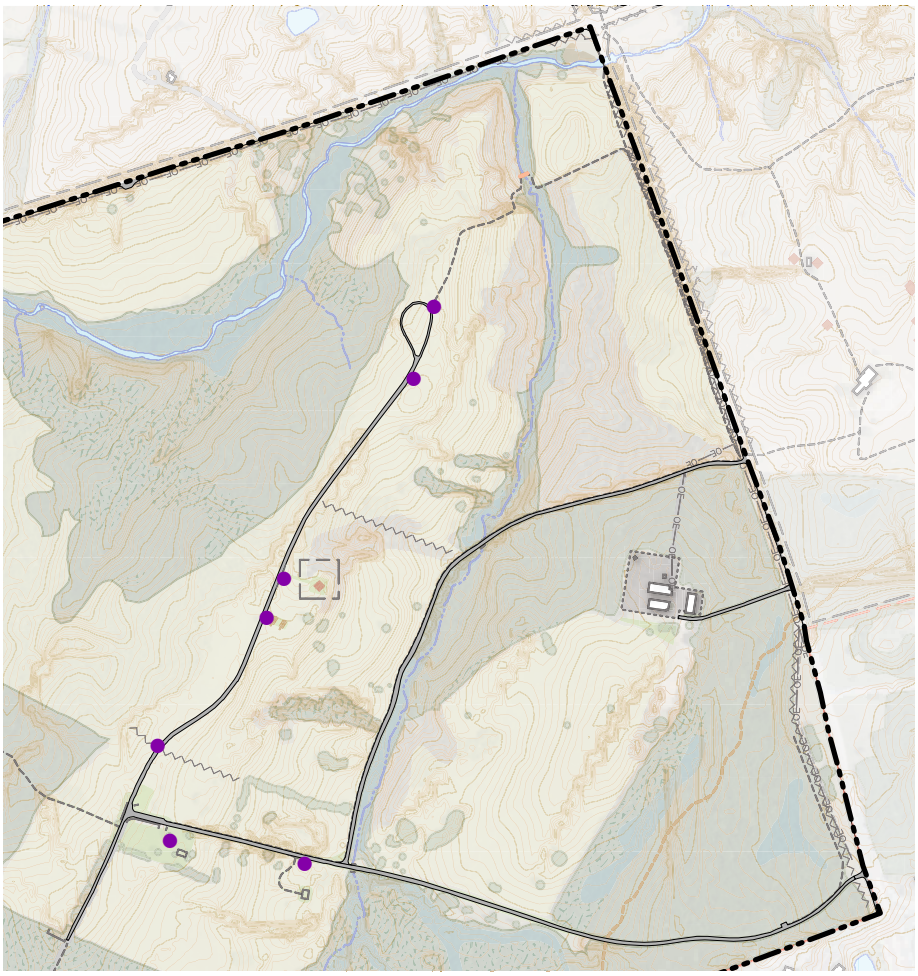
B-5. Option A: Maintain accessible pedestrian route on Chinn Ridge. Interpretive nodes are indicated in purple.

Option B would reestablish a vehicular route on Chinn Ridge in the location of the CCC-era road (see Figure B-6). The road would follow the full extent of the historic road and terminate in a turnaround at the north end of Chinn Ridge. A pull-out would be provided near the Fletcher Webster Monument. Advantages of Option B include:

- This option is consistent with the commemoration and rehabilitation period, when the route was constructed as a tour road.
- This option provides easy universal access to the full length of the ridge.
- Since most visitors access park resources by car, the vehicular route would increase visitor access along the ridge.

Disadvantages of Option B include:

- There is a risk of increased law enforcement issues which had plagued the previous vehicular route.
- The quality of the interpretive experience for visitors as they experience the landscape and consider the historic events would be impacted by regular use of the trail by automobiles.



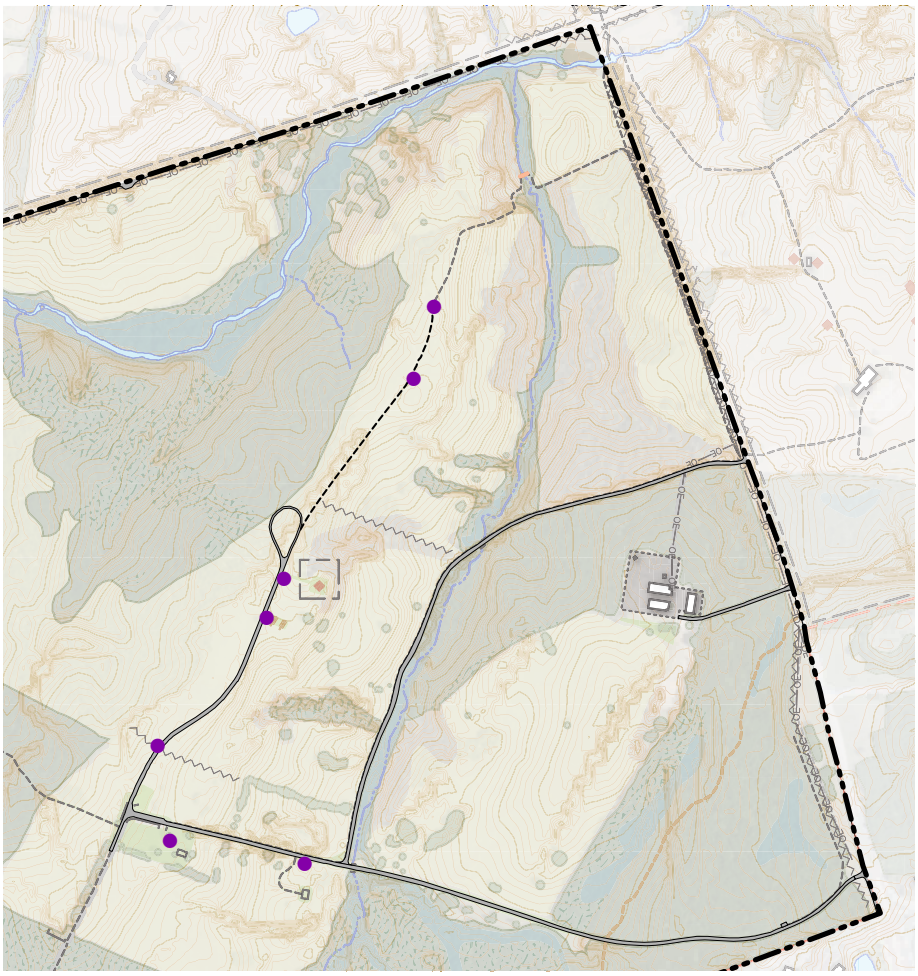
B-6. Option B: Reestablish vehicular route on Chinn Ridge. Provide pullout at Fletcher Webster monument. Interpretive nodes are indicated in purple.

Option C would reestablish a vehicular route on Chinn Ridge along a portion of the CCC-era road (see Figure B-7). The road would terminate in a turnaround near the Fletcher Webster Monument, and a barrier-free pedestrian route would extend to the north along the route of the historic road. Advantages of Option C include:

- Visitor access to park resources via vehicle would be increased.
- The trail to the north end of ridge would be reduced in length, which would likely increase pedestrian traffic to First Manassas interpretation and views.
- This options provides a good balance of easy and challenging universally accessible experiences along full length of the ridge.

Disadvantages of Option C include:

- A new turnaround would be added in the center of the ridge, rather in the historic location of the turnaround. Ground-disturbing activities would be required to construct the turnaround in this location.
- Similar to Option B, there is an increased risk of law enforcement issues.



B-7. Option C: Reestablish vehicular route on Chinn Ridge up to Webster Monument. Maintain pedestrian route to the north of Webster Monument. Interpretive nodes are indicated in purple.

Parking at Chinn Farm

Preliminary alternatives 1 and 2 proposed moving the parking off the top of Chinn Ridge to reduce impacts to views along the ridge. Handicap parking would continue to be located on the top of the ridge. NPS staff expressed concerns about reducing accessibility at Chinn Ridge. Two revised alternatives were produced for the follow-up call. One includes barrier-free parking in its current location. The other has barrier-free parking located on the west side of the trees at the western edge of the farm area. This topic was not resolved during the follow-up call. Three alternatives are described.

Option A retains the existing parking lot at Chinn Farm (see Figure B-8). Advantages of Option A include:

- The parking lot is in good condition. No installation cost or ground disturbance associated with new construction is required.
- Barrier-free parking spaces are integrated into the parking area used by most visitors.

Disadvantages of Option A include:

- Cars in the parking area are highly visible from along Chinn Ridge, and block views of the Chinn House foundation from the trail along the ridge.

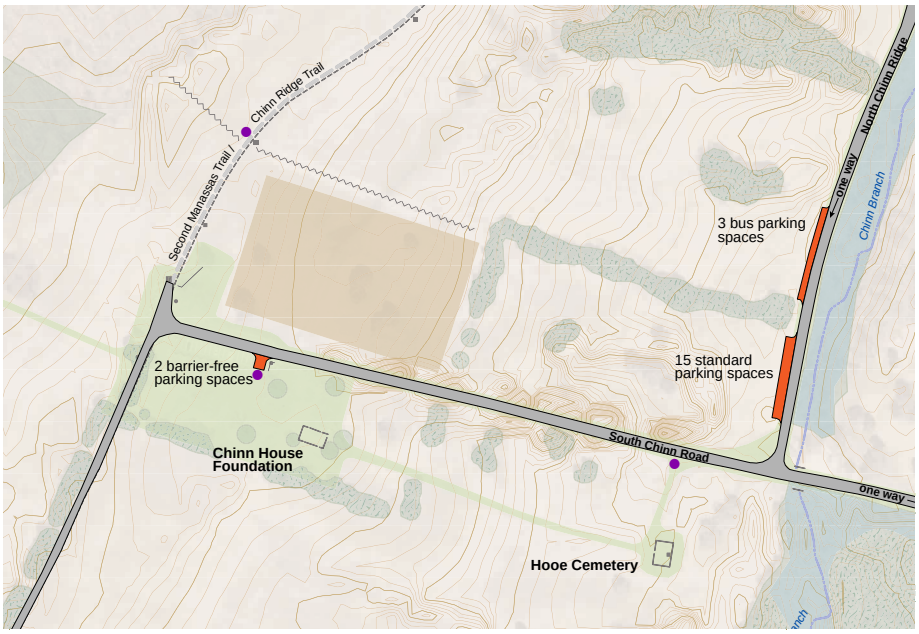
B-8. Option A: Existing parking area, facing southeast toward Chinn House foundation (QEA, 2017).

Option B proposes to relocate the Chinn Farm parking area to along North Chinn Drive (see Figure B-9). The new parking area would provide 15 standard parking spaces and three bus parking spaces. Two barrier-free parking spaces would be retained in their existing location to provide access to the Chinn House foundation and Chinn Ridge. The new parking lot would be designed to minimize impacts to Chinn Branch. The Chinn House foundation wayside would be moved to a location closer to the barrier-free parking spaces, and would be accessible from a short barrier-free route. Advantages of Option B include:

- This option rehabilitates important contributing views and spatial character in the core Chinn Farm area as well as along Chinn Ridge. Vehicles for the majority of visitors would be removed from the view along Chinn Ridge, and could be screened from the view from Chinn Ridge to Bald Hill using grasses.
- The approach and experience of visiting the Chinn Farm core would be at a pedestrian scale and pace, allowing visitors to more completely absorb the character of the setting and consider interpretive accounts as they connect to the landscape. This enhanced experience may increase visitation and use of the site.

Disadvantages of Option B include:

- Most visitors would have a longer walk to the resources on top of the ridge, which may discourage visitation and decrease access.
- Barrier-free parking is separated from the primary parking area.-
- Construction of a new parking area would require ground disturbance in the vicinity of Chinn Branch.
- Parking area may impact significant views between Chinn Farm and Bald Hill.



B-9. Option B: Relocate Chinn Farm parking area to North Chinn Drive. Retain barrier-free parking in existing location. Provide barrier-free route to Hooe Cemetery.

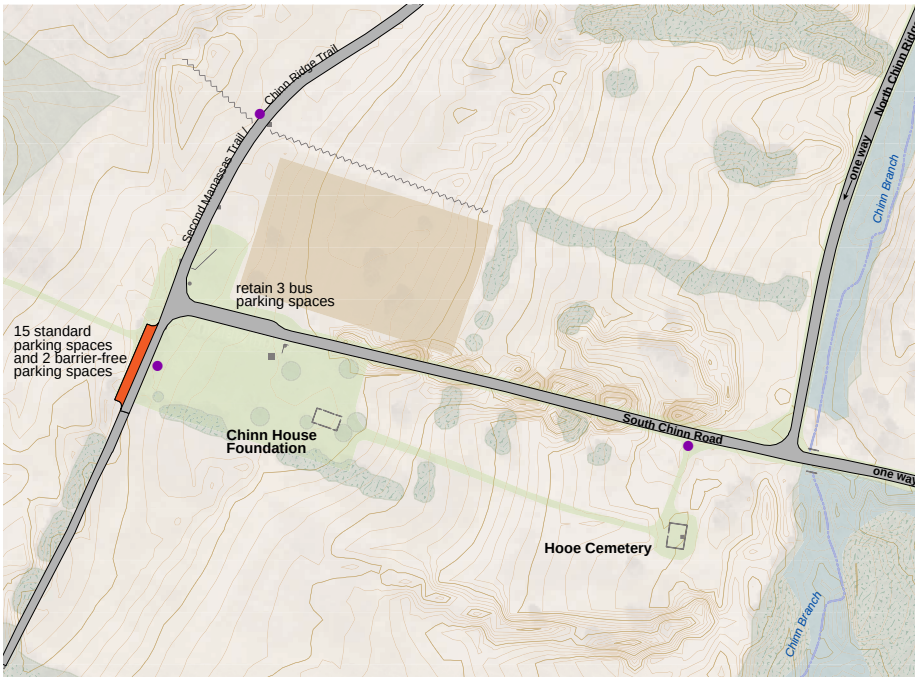
Option C proposes to relocate the parking area to the west of the Chinn Farm core (see Figure B-10). The new parking area would provide 15 standard parking spaces and two barrier-free parking spaces. Three bus spaces would be retained in their existing location. The Chinn House foundation wayside would be moved to a location closer to the barrier-free parking spaces, and would be accessible from a short barrier-free route. Advantages of Option C include:

- This option partially rehabilitates contributing views and spatial character in the core Chinn Farm area as well as along Chinn Ridge. Vehicles for most visitors would be moved off of the primary visual axis along the ridge.
- Barrier-free parking is integrated into the primary parking area.
- Bus parking is separated from the primary parking area, alleviating congestion and conflicts. Existing bus turning area is retained.

Disadvantages of Option C include:

- Construction of a new parking area would require ground disturbance along Chinn Ridge.
- Some vehicles would be removed from the primary viewshed, but would continue to impact some views and spatial character along the ridge.

Following the July 18, 2018 discussion, Option C was selected as the preferred treatment. The parking area will be screened by maintaining existing fencerow vegetation on the west side of the Chinn House foundation. The preferred treatment will also include a barrier-free route to the wayside that interprets the Chinn House foundation.



B-10. Option C: Relocate parking area to west side of Chinn Farm core.

Accessible Route to Hooe Cemetery

Option A is a no-action alternative that retains the existing mown grass trail from South Chinn Drive to the Hooe Cemetery (see Figure B-11). Advantages of Option A include:

- No additional cost associated with construction of new pullout and trail.

Disadvantages of Option A include:

- The steep slope and mown grass surface of the existing trail does not provide a barrier-free route accessing the Hooe cemetery.

Option B proposes a barrier-free route to the Hooe Cemetery, following the existing grade. To facilitate the route at slopes below 4%, a new pullout would be added to the west of the existing pullout. The existing pullout would be removed (see Figure B-12).

Advantages of Option B include:

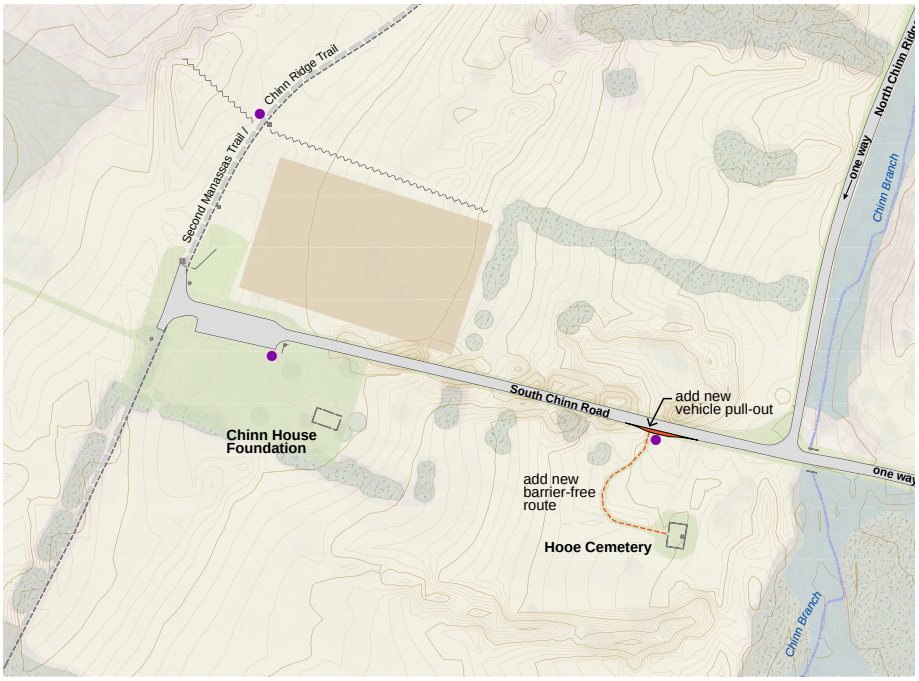
- This option increases access to the Hooe Cemetery for all visitors.
- Crushed fines of stone can be installed to provide a stable barrier-free surface for the trail without requiring below-grade disturbance.

Disadvantages of Option B include:

- The new route would not follow a historic circulation route, and may have minor impacts to the spatial organization and views in the Chinn Farm core.
- Removal of the existing pullout and construction of a new pullout would require ground disturbance.

Following the July 18, 2018 discussion, Option B was selected as the preferred alternative.

B-11. Option A: Existing grass trail facing north from Hooe Cemetery toward South Chinn Road (QEA, 2017).



B-12. Option B: Add barrier-free route to Hooe Cemetery.

Representation of Chinn House

During the workshop, the group discussed the importance of the Chinn House as a vertical element in the landscape during the battled. The building is referred to frequently in battle accounts and as part of NPS interpretation. The lack of ability to see the house from key points in the landscape makes understanding the historic narratives difficult (see Figure B-13). Three general approaches to the Chinn House were discussed and the group decided to move forward to consider two as part of the revised treatment alternatives. All three include preservation of the Chinn House foundation. The three considered were:

1. Continue to preserve and interpret the Chinn House Foundation in its current condition.
2. Add a vertical feature that can be viewed from key points.
3. Rehabilitate the house to reflect the scale, location, and overall design of the exterior of the structure. The interior space will be designed to address programming needs at the site, such as interpretation or comfort facilities.

Options #2 and #3 were considered during the follow up call. NPS staff agreed that rehabilitation of the exterior of the Chinn House is not an warranted in the foreseeable future, as the park does not have a programmable use that need to be accommodated in this location. The group also agreed that this type of treatment needs to be considered on a park-wide basis to determine if this approach is appropriate here or in any other locations. That consideration is beyond the scope of this CLR. The preferred treatment in the CLR will recommend preservation of the foundation and a park-wide planning project to consider if, where, and how, non-extant buildings should be represented within the park for purposes of interpretation.

B-13. The Chinn House was a prominent visual feature on the landscape during both battles, but no longer provides a visual reference point.

Option A would continue to preserve and interpret the existing Chinn House foundation in place (see Figure B-14). Advantages of Option A include:

- Option A minimizes disturbance to the existing Chinn House foundation.

Disadvantages of Option A include:

- The form of the Chinn House, which was an important reference point during both battles, is not readily visible on the landscape.

B-14. Option A: Preserve and interpret Chinn House foundation in place (QEA, 2018).

Option B would continue preservation and interpretation of the extant foundation with the addition of a vertical marker(s) to support visual connections to the building site from afar. For instance, structures representing the roofline of the missing building or the missing chimneys might be added. Examples of three-dimensional representation are provided in Figures B-15 through B-18. Advantages of Option B include:

- This option rehabilitates the form of the Chinn House as an important visual marker on the landscape, and would provide a reference point to interpret both battle movements and the spatial organization of Hazel Plain plantation/Chinn Farm.
- Successful representation of the three dimensional form of the Chinn House may provide a replicable precedent for other missing buildings at the park.

Disadvantages of Option B include:

- Construction of the three dimensional elements may impact the existing foundation. The new form must be carefully designed to protect the extant features.

B-15. Option B: Represent missing Chinn House chimneys.

B-16. Ghosted building at St. Marys City, Maryland (Margaret Yocom, 2013).

B-17. Platform and roof "ghost" structure represents form of missing building at Blue Heron Mining Community (here4now.typepad.com)

B-18. Building fragments used to support new structure in historic location at Women's Rights National Historic Park and Visitor Center (Elemental NYC).

Representation of Chinn Farm Fences

It is currently difficult to visualize the Chinn Farm as a working plantation. During the workshop, the group concurred that the treatment alternatives should provide visitors with a better sense of the yard location and use during the periods of significance. Two revised alternatives were proposed that correlate to the level of development undertaken at the Chinn House foundation. The revised alternatives also carefully consider the quantity of fences needed to achieve the goals of landscape appearance. This topic was not resolved during the follow-up call. Two alternatives are presented in the following section of this draft.

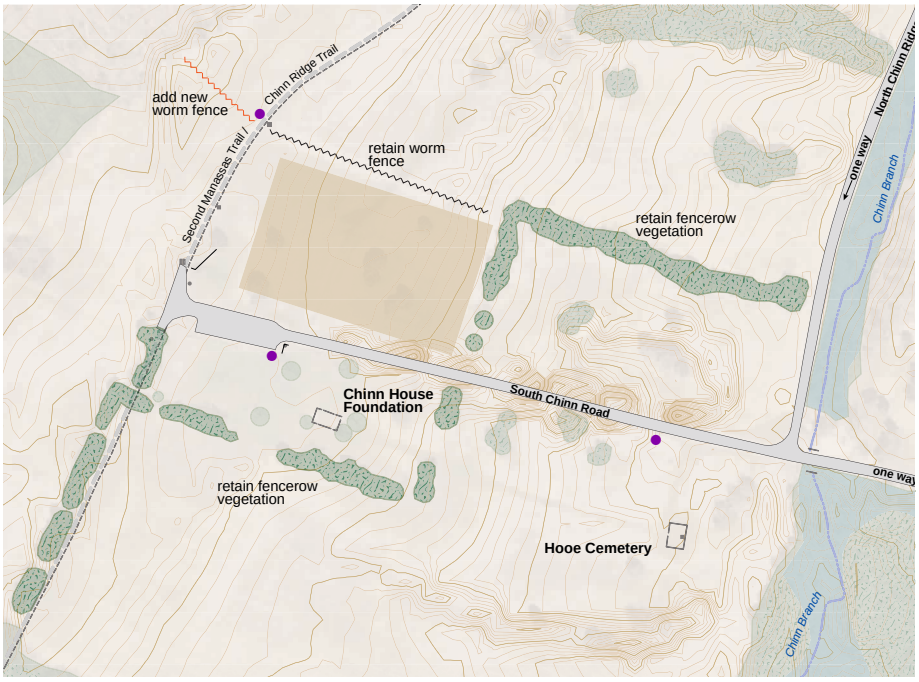
Option A is a minimal-action alternative intended to correspond to Option A for the Chinn House foundation (see Figure B-19). Under this alternative, fences would be added as indicated in the Fence Lines, Fields, and Forests CLR. Fencerow vegetation at Chinn Farm would be retained.

Advantages of Option A include:

- Fencerows are a relatively low-maintenance strategy to reinforce the spatial organization of the Chinn Farm core.

Disadvantages of Option A include:

- As the vegetation that makes up the fencerow dies, the location of the perceived boundary may shift and expand.
- Tree roots may impact subgrade features, if present.
- Fencerow vegetation may block visual connections.



B-19. Option A: Retain fencerow vegetation at Chinn Farm.

Option B is an action alternative intended to correspond to Option B for the Chinn House foundation (see Figure B-20). Under this alternative, fences would be added as indicated in the Fence Lines, Fields, and Forests CLR. In addition, fencerow vegetation at Chinn Farm would be removed and worm fences constructed in the location of the historic fences.

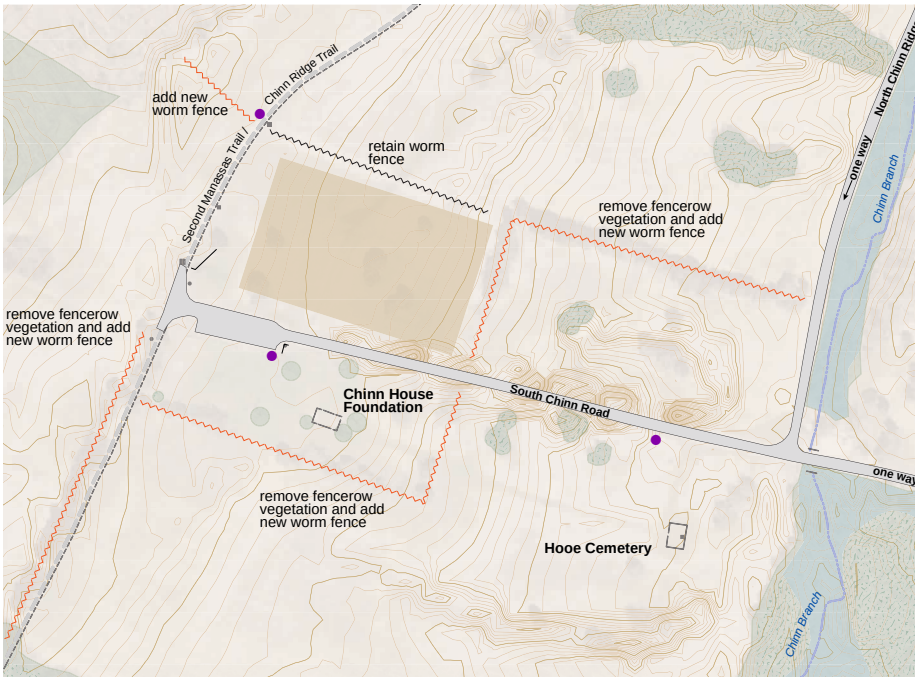
Advantages of Option B include:

- Currently, vegetation marks the location of numerous historic features including fences, outbuildings, and check dams. Rehabilitating fences in historic locations would clarify the spatial organization of the core Chinn Farm area.

Disadvantages of Option B include:

- Fences are expensive to construct and maintain.
- Fencerow vegetation must be carefully removed to avoid impact to subgrade features, if present.

Based on the July 18, 2018 discussion, the CLR will recommend removing the fencerows and adding fences along historic fence lines within the Chinn Farm Core. The preferred treatment includes a process to evaluate fencerow vegetation and maintain select specimen trees. Following treatment tasks 9 and 10 in the Fence Lines, Fields, and Forests CLR, worm fencing will be used as the default fence type unless historic information or archeological investigations reveal the original fence type.



B-20. Option B: Remove fencerow vegetation at Chinn Farm and construct worm fence in location of historic fence.

Vehicular Route between New York Monuments and Chinn Ridge

Early planning documents including the 1941 Master Plan proposed an internal vehicular road connecting the New York Monuments and Chinn Ridge along Compton's Lane.

Advantages of a road between the New York Monuments and Chinn Ridge include:

- An internal road would bypass the periodically heavy traffic on Lee Highway and Sudley Road.
- The route could provide a universal experience for all visitors following the advance of Longstreet's Line from west to east.

Disadvantages of a road between the New York Monuments and Chinn Ridge include:

- The road would impact existing contributing circulation routes and potential archeological sites.
- The road would be highly visible within contributing viewsheds when they are rehabilitated.

Although the park has expressed interest in an internal route between these two areas, this concept was dismissed early in the project process due to the high potential for significant impact to contributing features.

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Bibliography

Section Cover photo: Aerial oblique photograph of study area, 1956 (MANA Archives)

BIBLIOGRAPHY

PRIMARY RESOURCES

PHOTOGRAPH COLLECTIONS

Manassas National Battlefield Park Archives. Chinn House.

Manassas National Battlefield Park Archives. Chinn House Stabilization.

Manassas National Battlefield Park Archives. Chinn Ridge Bald Hill.

Manassas National Battlefield Park Archives. New York Monuments on Warren Ave.

MANASSAS NATIONAL BATTLEFIELD PARK PROPERTY FILES.

01-132 W. H. Dogan

01-154 Willis G. Early

01-156 John H. Parrish

01-158 John T. Hottel

01-159 State of New York

01-160 Joseph A. Nycz

01-162 Charles C. Cravers

01-163 Joseph W. Patterson

01-164 Lewis E. Smith et. al.

01-166 Sal McGlothlin

02-170 Southern Lightweight Aggregate Co.

02-173 SWG, LLC

MAPS AND DRAWINGS

Atkinson, W. G. "Map of the Battle Fields of Manassas and the Surrounding Region: Showing the Various Actions of the 21st July, 1861, between the Armies of the Confederate States and the United States." 1 map, 35 x 34 cm. 1861.

Bowen, James L. "Battlefield of Youngs Branch or Manassas Plains." Map.

Burr, Major Edward. "Map of Maneuver Grounds Prince William and Fairfax Counties, VA." Corps of Engineers, June-July 1904. On file at Prince William County RELIC Library and Library of Congress.

Hotchkiss, Jedidiah. "Sketch of Manassas Battlefield." 1863. On file at Library of Congress.

National Park Service. "Sketches Showing Location and Nature of Damages Requiring Emergency Measures." 1 drawing. Department of the Interior, National Park Service, Recreational Demonstration Projects, 1936. On file at NPS TIC.

National Park Service. "Structural Bracing for the Chinn House." 1 drawing. Department of the Interior, National Park Service, Recreational Demonstration Projects. 1937. On file at NPS TIC.

National Park Service. "Sketches Showing Location and Nature of Damages Requiring Emergency Measures." 1 drawing. Department of the Interior, National Park Service, Recreational Demonstration Projects. 1936. On file at NPS TIC.

National Park Service. "General Development Plan, Part of the Master Plan for Manassas National Battlefield Park." 1941. On file at MANA Archives.

National Park Service. "Soil and Moisture Conservation Plan, part of the Master Plan for Manassas National Battlefield Park." 1951. On file at NPS TIC.

National Park Service. "Manassas National Battlefield Park Atlas." GIS Data.

Sneden, Robert Knox. "Plan of 2nd Battle of Bull Run, Va. Position at 6 pm August 30th, 1862." Map. On file at Library of Congress.

US Army Corps of Engineers. "Map of the battlefield of Bull Run, Virginia. Brig. Gen. Irvin McDowell commanding the U.S. forces, Gen. G [i.e. P.] T. Beauregard commanding the Confederate forces, July 21st 1861."1 map. 1877. On file at Library of Congress.

Warren, G.K. "Map of Battle-Grounds of August 28th, 29th, & 30th 1862, in the Vicinity of Groveton, Prince William Co., Va." 1 map, 57 x 68 cm, Scale 1:21,120. 1878.

BOOKS AND REPORTS

National Park Service. *Final Report, Bull Run Battlefield Recreational Demonstration Project, Virginia R-6, Manassas, Virginia* (US Department of the Interior, National Park Service, 1935).

Ostrander, Peter W. *Story of the Dedication of the Monument to the Memory of the Members of the "Fourteenth Brooklyn" Regiment, who fell on the Bull-Run battles' field.* Fourteenth Regiment War Veterans' Association, 1907. On file at Manassas National Battlefield Park.

Historic American Buildings Survey, *Chinn House (remains)*, Groveton, Prince William County, VA, 1959.

SECONDARY RESOURCES

Andrus, Patrick W. *National Register Bulletin 40: Guidelines for Identifying, Evaluating, and Registering America's Historic Battlefields*. U.S. Department of the Interior, National Park Service, 1992, revised 1999.

Bearss, Edwin C. *Historical Report: Troop Movement Maps: Battle of First Manassas and Engagement at Blackburn's Ford*. US Department of the Interior, National Park Service, 1981.

Belden, A. Jr., G.P. Fleming, and N.E. Van Alstine. *A natural heritage inventory of Manassas National Battlefield Park.* Nat. Heritage Tech. Rep. 98-7. Richmond, VA: Virginia Dept. of Conservation and Recreation, Division of Natural Heritage, Richmond, 1998.

Birnbaum, Charles A. and Christine Capella Peters. *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes.* Washington, DC: US Department of the Interior, Natioal Park Service, 1996.

Como, Tish. "Effects of the 1904 Army Maneuvers on the Greater Manassas Community." Prince William County RELIC. http://eservice.pwcgov.org/library/digitalLibrary/Map-1904/PWR_1-2010.pdf.

Dalliare Michael P. and Scott A. Saunders. "Rustic Pavements." *Public Roads: Federal Highway Administration and Research Technology Magazine* 68 (2): 2004.

Gorsira, Bryan. *Manassas National Battlefield Park Natural Resource Condition Assessment Summary.* US Department of the Interior, National Park Service, 2011.

Historic Prince William. "Compton/Davis Family Cemetery record," included in Saint Martin's Episcopal Church, "The Herald," April 2012. On file at Manassas National Battlefield Park.

Hennessy, John. *Historical Report on the Troop Movements for the Second Battle of Manassas, August 28 through August 30, 1862*. U.S. Dept. of the Interior, National Park Service, Denver Service Center, Northeast Team, 1985.

Joseph, Maureen. *Manassas Northeast Quadrant Cultural Landscapes Inventory.* US Department of the Interior, National Park Service, 1996.

Joseph, Maureen. *Northwest Quadrant Manassas National Battlefield Park Cultural Landscapes Inventory.* US Department of the Interior, National Park Service, 1996.

Little, Barbara , Erika Martin Seibert, Jan Townsend, John H. Sprinkle, and John Knoerl. *Preservation Brief 36: Protecting Cultural Landscapes, Planning, Treatment, and Management of Historic Landscapes.* Washington, DC: Department of the Interior, National Park Service, 2000.

McGarry, Thomas E. *Manassas Historic Sites Survey, Manassas National Battlefield Park, Virginia.* US Department of the Interior, National Park Service, Denver Service Center, National Capital Team, 1986.

McGarry, Thomas E. and Charles F. Bohannon. *An Archeological Survey of Selected Portions of Manassas National Battlefield Park, Prince William County, Virginia.* US Department of the Interior, National Park Service, Denver Service Center, 1986.

National Park Service. *Final General Management Plan/Environmental Impact Statement, Manassas National Battlefield Park.* Washington, DC: US Department of the Interior, National Park Service, 2011 [final submitted 2008; signed 2011].

National Park Service Geologic Resources Division. *Manassas National Battlefield Park Geologic Resource Evaluation Report.* US Department of the Interior, National Park Service, Natural Resource Program Center, 2008.

National Park Service. *Mowing Plan for Manassas National Battlefield Park.* U.S. Department of the Interior, National Park Service, 2016.

National Register of Historic Places. *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation.* Washington, DC: Department of the Interior, 1990 (1997 ed.).

Northern Virginia Soil and Water Conservation District. "Stop Erosion - Solving Drainage and Erosion Problems." Fairfax County, Virginia. https://www.fairfaxcounty.gov/soil-water-conservation/drainage-problem-protect-eroding-land.

Oeschger, Jennifer. *Chinn Ridge Cultural Landscape Inventory, Manassas National Battlefield Park.* US Department of the Interior, National Park Service, [Draft] 2016.

Page, Robert R., Cathy A Gilbert, and Susan Dolan. *A Guide to Cultural Landscape Reports: Contents, Processes, and Techniques*. Washington, DC: United States Department of the Interior, National Park Service, Cultural Resource Stewardship and Partnerships, Park Historic Structures and Cultural Landscapes Program, 1998.

Parsons, Mia. *Cultural Landscape Inventory: Southern Portion Manassas National Battlefield Park*. US Department of the Interior, National Park Service, 1996.

Quinn Evans Architects and the Louis Berger Group. *Manassas National Battlefield Park Unfinished Railroad Cultural Landscape Report*. US Department of the Interior, National Park Service, National Capital Region, 2014.

Reeves, Matthew, Gail Brown, and Kimberly Holmes. *Phase I and II Cultural Resource Investigation of Proposed Federal Highway Improvements at Parking Areas and Access Roads*. US Department of the Interior, National Park Service, 2002.

Schiable, Daniel, Jane Anderson, Judith Early, Saylor Moss, and Nancy Sarai Vazquez. *Fence Lines, Fields, and Forests: Cultural Landscape Report, Manassas National Battlefield Park.* US Department of the Interior, National Park Service, National Capital Region, 2013.

Soil Conservation Service. "Soil Survey of Prince William County." US Department of Agriculture, Soil Conservation Service, 1989.

Thomas, Jane Tim Carruthers, Bill Dennison, Mark Lehman, Megan Nortrup, Patrick Campbell, and Bryan Gorsira. *Manassas National Battlefield Park Natural Resource Condition Assessment Summary.* US Department of the Interior, National Park Service, 2011.

Trieschmann, Laura Virginia. "Manassas Battlefield Historic District (Amended and Boundary Expansion)." National Register of Historic Places Registration Form, 2006.

Turner, Ronald Ray. *Prince William County Obituaries, 1900-1930*. Manassas, Virginia, 1996.

Turner, Ron and Howard Thompson. "Prince William County Cemetery Register Form, Compton or Davis Cemetery." On file at Prince William County, Virginia, 1996.

United States Department of the Interior. National Park Service. "Brawner Farm - Deep Cut Vista Enhancement." Environmental Assessment, 2008.

Virginia Department of Forestry. *Virginia's Forest Best Management Practices for Water Quality Field Guide*. 2009.

Virginia Stream Management and Technical Design Workgroup. "The Virginia Stream Restoration & Stabilization Best Management Practices Guide."Virginia Department of Conservation and Recreation, Division of Soil and Water Conservation, 2004.

Walker Collaborative with History Associates, Inc. and Land Planning & Design Associates. *Manassas Battlefields Viewsheds Study, Prince William County, Virginia*. ABPP Grant No. GA-2255-06-007; Prince William County Contract No. 71312NO0, 2010.

White, Gwendolyn K. *Rosefield: The History of the John Dogan Farm, Manassas National Battlefield Park, Historic Resource Study*. Doctoral thesis, George Mason University, 2012.

Zenzen, Joan M. *Battling for Manassas: The Fifty-Year Preservation Struggle at Manassas National Battlefield Park.* University Park, PA: The Pennsylvania State University Press, 1998. [Expanded version of the administrative history issued by the National Park Service in 1995].

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Terminology

Section Cover photo: Brooklyn 14th Monument, 1906 (Ostrander).

Terminology

Specific terminology referenced in this document is provided below for ease of reference.

AD, BC, BP

Temporal conventions used in this CLR / EA include BC and AD for cultural time periods up to 1000. After this date, no designation is provided. Before Present (BP) is used for geological epochs in the Natural History Overview to be consistent with research sources.

Character-defining feature

A prominent or distinctive aspect, quality, or characteristic of a cultural landscape that contributes significantly to its physical character. Land use patterns, vegetation, furnishings, decorative details, and materials may be such features.[1]

Consider

A prominent or distinctive aspect, quality, or characteristic of a cultural landscape that contributes significantly to its physical character. Land use patterns, vegetation, furnishings, decorative details, and materials may be such features.[2]

Cultural landscape

A geographic area (including both cultural and natural resources and the wildlife or domestic animals therein) associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values.[3] The National Park Service identifies four types of cultural landscapes:

Historic site

A landscape significant for its association with a historic event, activity or person.[4]

Historic designed landscape

A landscape that was consciously designed or laid out by a landscape architect, master gardener, architect, engineer, or horticulturist according to design principles, or an amateur gardener working in a recognized style or

tradition. The landscape may be associated with a significant person, trend, or event in landscape architecture; or illustrate an important development in the theory and practice of landscape architecture. Aesthetic values play a significant role in designed landscapes.[5]

HISTORIC VERNACULAR LANDSCAPE

A landscape that evolved through use by the people whose activities or occupancy shaped it. Through social or cultural attitudes of an individual, a family, or a community, the landscape reflects the physical, biological, and cultural character of everyday lives. Function plays a significant role in vernacular landscapes.[6]

ETHNOGRAPHIC LANDSCAPE

Area containing natural and cultural resources that associated people define as heritage resources, including plant and animal communities, geographic features, and structures.[7]

CULTURAL LANDSCAPE REPORT

A cultural landscape report (CLR) documents the history and existing conditions of a cultural landscape, evaluates its significance according to the Secretary of the Interior's Standards, and provides design and management recommendations for the property.[8]

FEATURE

The smallest element(s) of a cultural landscape that contributes to its significance and that can be the subject of a treatment intervention.[9]

HISTORIC CHARACTER

The sum of all features, visual aspects, materials, and spaces associated with a cultural landscape's history. These qualities are often referred to as character-defining.[10]

HISTORIC SIGNIFICANCE

The recognized importance a property displays when it has been evaluated, including when it has been found to meet National Register Criteria.[11]

INTEGRITY

The authenticity of a property's historic identity, evidenced by the survival of physical characteristics that existed during the property's period of significance. The seven qualities of integrity as defined by the National Register program are location, setting, feeling, association, design, workmanship, and materials.[12]

LOCATION

Location is the place where the historic property was constructed or the place where the historic event occurred.[13]

DESIGN

Design is the combination of elements that create the form, plan, space, structure, and style of a property.[14]

SETTING

Setting is the physical environment of a historic property.[15]

MATERIALS

Materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.[16]

WORKMANSHIP

Workmanship is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.[17]

FEELING

Feeling is a property's expression of the aesthetic or historic sense of a particular period of time.[18]

ASSOCIATION

Association is the direct link between an important historic event or person and a historic property.[19]

LANDSCAPE CHARACTERISTICS

The tangible and intangible characteristics of a landscape that define and characterize the landscape and that, individually and collectively, give a landscape character and aid in understanding its cultural value.[20] The cultural landscape at Split Rock Lighthouse Historic Site is documented and assessed according to these landscape characteristics:

NATURAL SYSTEMS AND FEATURES

Natural Systems and Features are those natural aspects that have influenced the development and physical form of the study area including geology, streams, and soils.

TOPOGRAPHY

Topography is the three-dimensional configuration of the landscape surface, characterized by slope and orientation.

SPATIAL ORGANIZATION

Spatial Organization is the arrangement of elements that define and create space through the ground, vertical, and overhead planes, including topography, vegetation, natural systems, and buildings and structures.

VIEWS

Views present a range of vision, natural or man-made.

CIRCULATION

Circulation includes features and materials that constitute systems of movement including vehicular routes, such as roads, and pedestrian routes, such as paths and trails.

VEGETATION

Vegetation is indigenous or introduced trees, shrubs, vines, ground covers, herbaceous plants, fields, and lawns.

BUILDINGS AND STRUCTURES

Buildings and Structures are three-dimensional man-made constructs such as houses, sheds, and privies.

SMALL-SCALE FEATURES

Small-scale features are human-scaled elements that provide specific functions at the site. These include both historic features related to island activities such as agricultural equipment, fences, and decorative landscape elements, as well as contemporary features placed by the NPS including signs and campsite furnishings.

NATIONAL REGISTER OF HISTORIC PLACES

The official list of the nation's historic places worthy of preservation. Authorized by the National Historic Preservation Act of 1966, the National Park Service's National Register of Historic Places is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archaeological resources.[21]

NATIONAL HISTORIC LANDMARK

A district, site, building, structure, or object of national historical significance, designated by the Secretary of the Interior under authority of the Historic Sites Act of 1935 and entered in the National Register of Historic Places.[22] A historic site may be important enough to receive designation as an NHL if it is the location with the strongest association with a turning point or significant event in American history; is the best location to tell the story of an individual who played a significant role in the history of the United States; is an exceptional representation of a particular building or engineering method, technique, or building type in the country; or provides the potential to yield new and innovative information about the past through archaeology.[23]

PERIOD OF SIGNIFICANCE

The span of time for which a cultural landscape attains historical significance and for which it meets National Register criteria.[24]

PRESERVATION

The act or process of applying measures necessary to sustain the existing form, integrity, and materials of a historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. New exterior additions are not within the scope of this treatment; however, the limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project.[25]

RECONSTRUCTION

Reconstruction is defined as the act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location.[26]

REHABILITATION

The act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values.[27]

RESTORATION

The act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project.[28]

TREATMENT ACTIONS

The following terminology is used in this CLR to describe recommended treatment actions.[29]

ADD

Add refers to the installation of new features required for new compatible use. Additions should be planned, designed, and installed to be clearly differentiated from the contributing features, so that these features are not radically changed, obscured, damaged, or destroyed.

AVOID

Avoid is to prevent the occurrence of an unnecessary "human caused" impact to the cultural landscape within reasonable circumstances.

CONSIDER

Consider is to evaluate if a treatment action should be undertaken.

MAINTAIN

Maintain refers to measures that sustain the form, integrity, and materials of features, either on a regular basis or as a non-recurring event.

MODIFY

Modify refers to a minor or partial change to a feature or landscape to allow for a new use while maintaining, its historical, cultural, or architectural character and/or contributing features.

PRESERVE

Preserve refers to those measures necessary to sustain the existing form, integrity, and materials of contributing features. It includes initial stabilization work, where necessary, as well as ongoing preservation maintenance and repair of historic materials and features.

PROVIDE

Provide is to make available the facilities and services necessary to support visitor experience within the cultural landscape.

REHABILITATE

Rehabilitate refers to the act or process of allowing compatible use through repair, alteration, or additions as long as those features that convey the historical, cultural, or architectural values are preserved.

REPAIR

Repair refer to those measures that are necessary to correct deteriorated, damaged, or faulty materials of features. These measures are more extensive than regular maintenance and undertake work necessary to bring a feature or area to good condition.

RETAIN

Retain refers to allowing a feature (contributing or non-contributing) to stay in place, without intervention or active management.

STABILIZE

Stabilize refers to those measures that require more work than standard maintenance practices, and are necessary to prevent further deterioration, failure, or loss of contributing features.

STATEMENT OF SIGNIFICANCE

Narrative documenting the recognized importance a property displays when it has been evaluated, including when it has been found to meet National Register criteria.[30]

ENDNOTES

1 Birnbaum and Peters, *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*, 4.

2 Birnbaum and Peters, *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*, 4.

3 Birnbaum and Peters, *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*, 4.

4 Birnbaum and Peters, *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*, 5.

5 Birnbaum and Peters, *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*, 5.

6 Birnbaum and Peters, *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*, 5.

7 Birnbaum and Peters, *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*, 5.

8 Page, Gilbert, and Dolan, *A Guide to Cultural Landscape Reports: Contents, Process, and Techniques,* 129.

9 Birnbaum and Peters, *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*, 4.

10 Birnbaum and Peters, *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*, 4.

11 Barbara Little, Erika Martin Seibert, Jan Townsend, John H. Sprinkle, and John Knoerl, *Preservation Brief 36: Protecting Cultural Landscapes, Planning, Treatment, and Management of Historic Landscapes* (Washington, DC: Department of the Interior, National Park Service, 2000), 8.

12 Page, Gilbert, and Dolan, *A Guide to Cultural Landscape Reports*, 139.

13 National Register of Historic Places, *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation* (Washington, DC: Department of the Interior, 1990 (1997 ed.)), 44.

14 National Register of Historic Places, *National Register Bulletin 15*, 44.

15 National Register of Historic Places, *National Register Bulletin 15*, 45.

16 National Register of Historic Places, *National Register Bulletin 15*, 45.

17 National Register of Historic Places, *National Register Bulletin 15*, 45.

18 National Register of Historic Places, *National Register Bulletin 15*, 45.

19 National Register of Historic Places, *National Register Bulletin 15*, 45.

20 Page, Gilbert, and Dolan, *A Guide to Cultural Landscape Reports*, 139.

21 Page, Gilbert, and Dolan, *A Guide to Cultural Landscape Reports*, 141.

22 Page, Gilbert, and Dolan, *A Guide to Cultural Landscape Reports*, 141.

23 National Park Service, "Learning about the National Historic Landmarks Program," accessed August 2016, http://www.nps.gov/nhl/learn/intro.htm.

24 Page, Gilbert, and Dolan, *A Guide to Cultural Landscape Reports*, 142.

25 Birnbaum and Peters, *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*, 18.

26 Birnbaum and Peters, *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*, 128.

27 Birnbaum and Peters, *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*, 48.

28 Birnbaum and Peters, *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*, 90.

29 Adapted from Birnbaum and Peters, *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*; National Park Service, "Workflows Definitions," http://www.nps.gov/dscw/definitions.htm; and Merriam-Webster's Collegiate Dictionary, 11th ed. Springfield, MA: Merriam-Webster, 2003, also available at http://www.merriam-webster.com

30 Little et al., *Preservation Brief 36: Protecting Cultural Landscapes, Planning, Treatment and Management of Historic Landscapes*, 8.

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