National Park Service
U.S. Department of the Interior

Olmsted Center
for Landscape Preservation

Cultural Landscape Report for Crater Battlefield

Petersburg National Battlefield

The mine is all finished, the powder in, the fuse all ready. I hope that the attack will be successful, for if it is, we shall have Petersburg in our possession.

Colonel Stephen M. Weld
56th Massachusetts
July 28, 1864

Cultural Landscape Report for Crater Battlefield

Petersburg National Battlefield

Petersburg, Virginia

Site History

Existing Conditions

Analysis and Evaluation

Treatment

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National Park Service, Boston, Massachusetts, 2017

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Cover Photo: The Crater site, marked by a large oak tree, viewed from the Union line across Poor Creek and the Norfolk Southern railroad. View west, 2015 (Olmsted Center for Landscape Preservation).

Title Page: "Within the mine. Col. Pleasants superinting [*sic*] the arrival of powder," Alfred R. Waud, 1864 (Library of Congress, http://hdl.loc.gov/loc.pnp/cph.3g12564).

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Foreword

The Battle of the Crater on July 30, 1864, was a defining event of the 283-day campaign around Petersburg in the Civil War and one of the most famous engagements in American military history. Ever since William Griffith started charging tourists a fee to view his shattered farm, the "Crater" south of Petersburg has served as the centerpiece of a vastly complicated and larger story. This difficult story is as much a part of our present as it is our past. *The Cultural Landscape Report for Crater Battlefield,* as well done as it is, cannot serve as the last word about what happened here in 1864 and 1865. Nevertheless, this volume will be enormously useful to current and future park managers as they contend with managing park infrastructure, vegetation, historic earthen defenses, and various memorials to the combatants so that people may visit this place and debate its meaning for generations to come.

The long collaborative effort toward completing this report has reached its end. Petersburg National Battlefield staff and staff of the Northeast Region's Olmsted Center for Landscape Preservation have successfully teamed up across disciplines and multiple perspectives to present a well-researched and attractively presented report summarizing the landscape history of the former Griffith and Taylor farms, describing and documenting existing conditions, explaining the significance of this place in American history, and finally recommending practical, and sometimes bold, actions toward treating and managing the Crater Battlefield landscape.

I thank the Olmsted Center for Landscape Preservation staff, especially Eliot Foulds and Timothy Layton for spearheading this effort. Additionally, park staff contributed their knowledge and expertise to insure this conflicted landscape is treated with the respect and solemnity it deserves.

Lewis H. Rogers
Superintendent
Petersburg National Battlefield

ACKNOWLEDGMENTS

This report has been made possible through the teamwork of the Northeast Region's Olmsted Center for Landscape Preservation and Petersburg National Battlefield. Superintendent Lewis Rogers championed the completion of this work in order to help guide thoughtful measures to sustain the park landscape. Julia Steele, the park Cultural Resource Program Manager, has served as the project point of contact, providing encouragement and support along with directing the project team toward historical documentation and reviewing draft documents. Prior to Julia taking on this role, David Shockley, former park Chief of Resource Management, threw his passion for the park's resources into scoping the original project proposal and initiating the collaboration between the park and the center.

Chris Bryce, Chief of Interpretation, and Park Curator Emmanuel Dabney, participated in project scoping and treatment meetings and carefully reviewed draft documents. Adam Baghetti, GIS Specialist, provided access to park mapping data and participated in treatment scoping meetings. Grant Gates, Supervisory Park Ranger, Interpretation, Timothy Blumenschine, Biologist, David Beaver, Facility Manager, Ann Blumenschine, Interpretation, Dale Griffith, Administrative Officer, and Scott Carrigan, Chief Law Enforcement Ranger, all participated in treatment scoping meetings.

At the Olmsted Center, Timothy W. Layton, Historical Landscape Architect, and Eliot Foulds, Senior Project Manager, served as the report's primary authors. Jill McFarland helped to get the ball rolling, authoring an early draft of the site history during her time as a project intern through a cooperative agreement with the University of Virginia. Robert Page, Director of the Olmsted Center provided overall project guidance and reviewed draft documents. Kim Ramos, Supervisory Budget Analyst, oversaw project accounting and administrative details for this project that, without her able assistance, the authors would have otherwise bungled.

We further extend our thanks to Jeff Killion, Historical Landscape Architect and CLI Coordinator at the Olmsted Center for reviewing draft documents and also to Stephanie Sanidas, Cultural Landscapes Asset Preservation Co-Coordinator for the Park Cultural Landscapes Program, for reviewing FMSS details in the draft documents. Additional thanks goes to Historian David Lowe with the Cultural Resources Geographic Information Systems, Washington Support Office and Robert Krick, Section 106 History Advisor for Petersburg National Battlefield, for their enthusiastic participation in the landscape treatment scoping meetings.

INTRODUCTION

Following the initial assault on Petersburg, Virginia ending June 18, 1864, Union forces developed a plan to excavate a tunnel under an entrenched Confederate position and destroy it by way of an underground mine. The explosion below Elliott's Salient, detonated during the early morning of July 30, initiated a bloody, and ultimately unsuccessful, attack that became known as the Battle of the Crater. While the outcome of the battle was indecisive, it captured the public imagination in the years following the war, and continues to do so today, attracting approximately 80,000 visitors annually.

The project setting is within the Eastern Front unit of Petersburg National Battlefield that comprised the scene of the fighting on July 30, 1864. This area includes those outlying areas lying to the east, providing artillery support for the Union offensive (Figure 1). This project area, approximately 330 acres in size, serves as the larger setting for the Crater site itself, the topographic void, the collapsed tunnel and rebuilt mine entrance, and adjacent terrain of approximately ten acres.

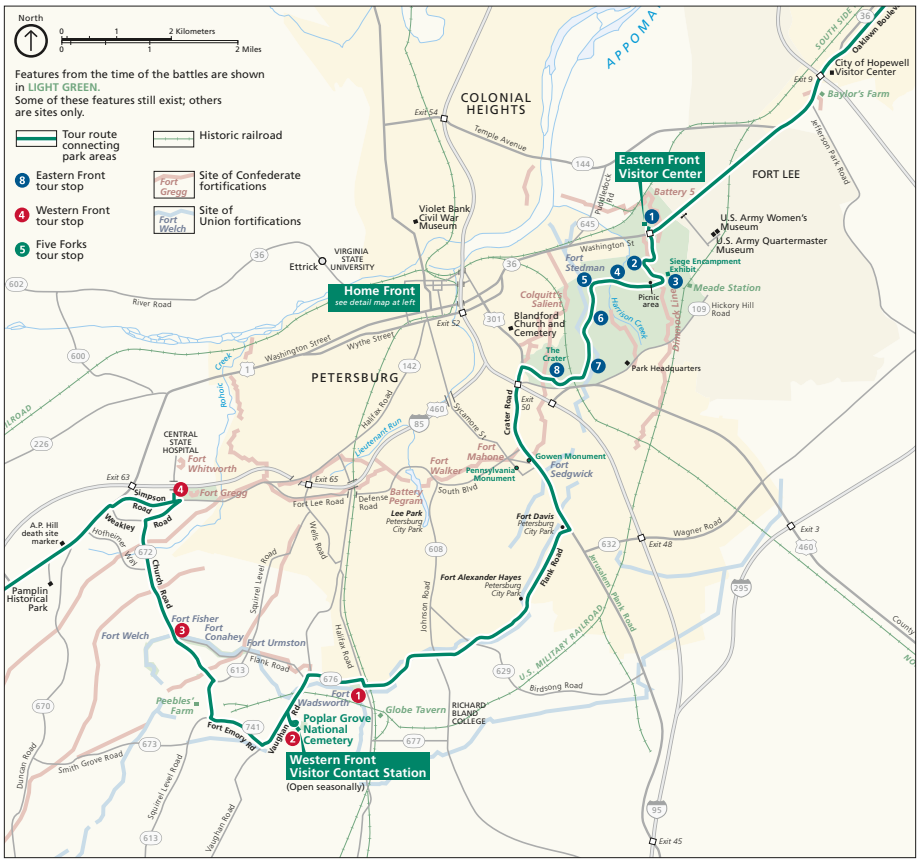


Figure 1. Petersburg National Battlefield map. The Crater Battlefield project area is in the Eastern Front zone and includes tour stops 7 and 8. Plan view (https://www.nps.gov/hfc/cfm/carto-detail.cfm?Alpha=PETE).

PURPOSE, SCOPE, AND METHODOLOGY

A cultural landscape report is the primary document used by the National Park Service for management of its historically significant landscapes. This report has been developed consistent with the methodology outlined in *A Guide to Cultural Landscape Reports: Content, Process, and Techniques*. This report builds upon previous documentation, including the park's enabling legislation, the *Final General Management Plan and Abbreviated Final Environmental Impact Statement* (2004), National Register of Historic Places documentation (2014 draft), and the *Foundation Document Petersburg National Battlefield* (2016).

This report is organized into four chapters beginning with a site history that traces the physical evolution of the Crater Battlefield landscape, followed by up-to-date documentation of the existing conditions, an analysis and evaluation of the significance and integrity of the Crater Battlefield landscape based on existing National Register of Historic Places documentation, and treatment recommendations that provide guidance for the long-term management of the landscape.

SUMMARY OF FINDINGS

SITE HISTORY

Prior to the Civil War, the Griffith and Taylor farms east of Petersburg and straddling the Norfolk and Petersburg Railroad right-of-way were productive Virginia farmsteads. By mid-June of 1864, this was no longer true. Beginning early in the war, Confederate Captain Charles Dimmock fashioned a system of earthen defenses for the city constructed using slaves and conscripted free blacks. This system of earthworks, known as the Dimmock Line, took every advantage of topography carefully choosing the location of artillery batteries for tactical advantage. On June 9, 1864, these fortifications began their test, as Grant's forces, for the time giving up on capturing Richmond, directed over 100,000 men to move south against Petersburg.

By mid-June, Union and Confederate forces had fought to a stalemate, both dug into opposing earthen positions strung out surrounding the town. One such location was east of town and just south of Blandford, along a Confederate defensive position known as the Harris Line, which would eventually bisect the Griffith and Taylor farms. Confederate Captain Richard Pegram's artillery battery located in front of Stephen Elliott's brigade of South Carolinians had the misfortune to be lined up across from Union soldiers hailing from the coal fields of Pennsylvania. Union Lieutenant Colonel Henry Pleasants, a mining engineer in civilian life, related to his commander that if given adequate equipment and

supplies, his men could tunnel under the Confederate salient in two weeks' time. By July 17, the Union tunnel reached underneath Elliott's Salient on the Confederate line, and work began on side galleries in which to place four thousand pounds of black powder. The powder charge was quietly placed beginning on July 27 and was ready to detonate in the early morning of July 30.

At 4:44 that morning, the red Virginia clay began to quake as the muffled explosion of the powder momentarily raised a small hill under Pegram's guns. From the summit burst smoke and flame reaching two hundred feet into the air, "Earth, stones, timbers, arms, legs, guns unlimbered and bodies unlimbed. . .ascended in fearful confusion and havoc."[1] Three hundred Confederate soldiers died at that instant, yet the blast created such confusion in the Union forces that when combined with inferior planning and execution of the charge that followed, the Confederate forces successfully counterattacked, trapping many of the Union soldiers in the "horrid pit" of their own creation.

While the repulse of the Union offensive was a great Confederate victory, the battle itself changed nothing. The Union forces continued to occupy their pre-battle positions, as did the Confederates. As a result of the fighting at the Crater, the two armies collectively experienced an estimated 5,300 casualties, yet 72,000 would be killed, wounded, missing, and captured at the end of a siege that continued another eight months and three days.

Immediately following the end of the fighting at Elliott's Salient, Confederate forces incorporated the Crater into their defensive line, beginning the transformation of the topography following the moment of the blast. Following the Union breakthrough into Petersburg on April 2, 1865, the transformation continued as local citizens pried loose timber revetments and burrowed through the soil for lead and scrap metal. Five dollars was paid for every human skull found and presented for reburial at the new Poplar Grove Cemetery.

Soon after the Griffith family returned to their shattered farm, visitors began arriving to gawk at the Crater in the middle of his field. Sensing an opportunity, William Griffith fenced in the site, laid out gravel paths, wooden steps, and began charging admission. Trees were permitted to grow to offer some relief to visitors from the unrelenting summer sun. Having collected an impressive assortment of military goods from the soil, Griffith constructed a Relic House, to display them. The Griffith heirs sold this real and personal property in 1925 to the Crater Battlefield Association. A year later, this group constructed a golf course in an effort to finance preservation and maintenance of the Crater site. To the east, the Taylor farm, former site of the Union Fort Morton, continued to be farmed, preserving the historic setting of the battlefield.

While the Crater golf course was being constructed in 1926, Congress passed legislation authorizing the creation of the Petersburg National Military Park, to be

administered by the War Department. When the new park was officially dedicated in 1932, the Crater property was still owned by the struggling private association. In 1934, amidst the Great Depression, the association declared bankruptcy and closed the golf course. After drawn out negotiations on behalf of the park, the Crater tract was finally incorporated into park holdings in 1936, and by this time, the National Park Service had assumed administration of all battlefield parks from the War Department. The dedication of the Crater parcel as a NPS property was marked with the pageantry of a reenactment of the battle, including mock hand-to-hand combat. The contents of the Griffith Relic House became the nucleus of the historical collections at the new park. The former golf course clubhouse became the park's first visitor center.

Planning was immediately begun to link the Crater site to the rest of the main park unit with a contiguous tour road, yet implementing this plan would not be possible until the Taylor farm laying to the east could be acquired. This was accomplished in 1942, the War Department once again stepping in to make the purchase, intending to use the property as part of its operation at neighboring Camp Lee. Following the end of World War II, the Taylor farm was transferred to the stewardship of the National Park Service and incorporated into the park.

The ten-year period between 1946 and 1956 was financially austere for the National Park Service with post-war national park visitation skyrocketing and yet funding remaining at wartime levels. The decline of park facilities and landscapes nation-wide led the agency to pursue a ten-year, billion-dollar capital improvement program which became known as Mission 66. It was this program that funded the completion of the final segment of the park tour road in 1962, finally joining the Crater Battlefield to the main park unit. The design for this last segment placed visitor parking as close as possible to the Union mine tunnel entrance in an elongated loop. Additionally, the park converted the pre-existing tour road into a one-way route beginning at Battery V where the new park visitor center was located. The visitor center adapted from the former clubhouse at the Crater site was removed at this time. Mission 66 also funded the rebuilding of the main tunnel entrance as an exhibit and the installation of pathways and fencing surrounding the Crater.

The 1962 design for the Crater Battlefield segment of the tour road incorporated a scenic overlook with the Taylor farm site in the foreground and the Crater site intended to be seen in the distance. Yet in the middle ground of the proposed view, successional woodland growth in the Poor Creek valley blocked the visual connection between the battle-era Union lines and the Crater. When work began to clear some of the woody vegetation in 1978, the parking lot for the Crater site loomed into view, discouraging additional clearing of the historic vista.

The park completed a Federal Highway Administration-funded project in 2002 to remove the vehicular overlook stop at the Crater. Between 2008 and 2009, the

park completed a project to remove the vehicular overlook stop at the Taylor farm site and to reroute the tour road south of the Fort Morton site. Two years later, the park completed an ambitious clearing project to remove successional woody vegetation and open a wide area between the Fort Morton site and the Crater. More recent projects include the installation of pedestrian bridges to connect interpretive and recreational trails over Poor Creek and its tributaries.

EXISTING CONDITIONS

The Olmsted Center for Landscape Preservation completed existing conditions documentation of the Crater Battlefield landscape based site visits conducted between 2015 and 2017. Existing conditions map sources include Virginia Geographic Information Network color orthophotographs (2013), LiDAR data provided by Petersburg National Battlefield (2013), and GIS data provided by Petersburg National Battlefield and the City of Petersburg. In addition, National Park Service List of Classified Structures (LCS), Archeological Sites Management Information System (ASMIS), and Facility Management Software System (FMSS) data have been incorporated into this documentation.

Located within the City of Petersburg, the Crater Battlefield consists of battle-era earthen defensive structures, archeological sites, vehicular, pedestrian, and historic traces of circulation, Poor Creek, successional woodlands, fields and meadows, and individual trees, tactical views, and commemorative monuments and markers installed around the Crater and at the mine tunnel entrance.

ANALYSIS AND EVALUATION

The analysis and evaluation chapter provides an overview of the historical significance of the Crater Battlefield landscape based on National Register of Historic Places documentation, evaluates the integrity of the cultural landscape, and analyzes the characteristics and features that contribute to the significance of the landscape. This analysis and evaluation is based on the criteria developed by the National Register of Historic Places. Petersburg National Battlefield was administratively listed in the National Register of Historic Places in 1966, with the passage of the National Historic Preservation Act. Documentation supporting this nomination is presently underway.

According to the 2014 draft National Register documentation, Petersburg National Battlefield derives its primary national significance under Criterion A in the area of Military from its association with the 10-month-long Petersburg Campaign (June 9, 1864, to April 2, 1865), which culminated in the abandonment of Petersburg and Richmond by the Confederate Army of Northern Virginia by April 3, 1865, and led directly to the Army's surrender at Appomattox Court House one week later. The park has additional national significance under Criteria

A and B for the events related to the establishment of Poplar Grove National Cemetery, for its association with Lieutenant General Ulysses S. Grant and Robert E. Lee, for President Abraham Lincoln's visit to City Point during the final days of the Campaign, as the site of the most extensive deployment of United States Colored Troops in battle during the Civil War, and for late nineteenth and early twentieth-century efforts to commemorate and preserve the battlefield. Poplar Grove National Cemetery possesses national significance under Criterion C in the areas of Landscape Architecture and Architecture and Appomattox Manor, four of its outbuildings, and Bonaccord are locally significant for their architectural designs. Under Criterion D, the park possesses national significance in the area of Archeology: Historic, Non-Aboriginal and state-level significance in the areas of Archeology: Prehistoric and Historic, Aboriginal/Non-Aboriginal.

Of these areas of significance for the entire park, the Crater Battlefield is significant over the period 1864 to 1942 under National Register Criterion A in the areas of military history, ethnic heritage, commemoration, and conservation, Criterion B for the military association with General Robert E. Lee, Criterion C in the area of engineering, and Criterion D in the area of archeology (prehistoric, historic–aboriginal, and historic–non-aboriginal). For the Crater Battlefield landscape, these areas of significance relate principally to two historic contexts: the Civil War, and the commemoration, preservation, and establishment of the park landscape.

Many landscape characteristics and features from the period of significance remain at the Crater Battlefield. These include buildings and structures, archeological sites, natural systems, circulation, views and vistas, and small-scale features. By comparing the historic condition and the existing condition of each of the landscape characteristics and features present at the Crater Battlefield, this report provides a consolidated table of features that contribute or do not contribute to the historic character of the landscape.

The Crater Battlefield landscape retains integrity to the period of significance with six out of the seven aspects of integrity evidenced on the grounds. Integrity of design and feeling are evidenced, but diminished by the growth and abundant presence of successional woody vegetation. The cultural landscape lacks integrity of setting due to successional woody vegetation and residential and light commercial development immediately adjacent to the park.

TREATMENT

The treatment chapter presents a strategy for the long-term preservation and management of the Crater Battlefield landscape. Treatment is the collective set of actions taken within a cultural landscape intended to ensure the protection and preservation of the resources and characteristics that contribute to its historic character.

For the Crater Battlefield landscape, rehabilitation is selected as a primary treatment for its capacity to accommodate repair and replacement of deteriorated and missing historic features, while simultaneously accommodating compatible alterations and new additions to the historic property to facilitate its continued use as a unit of the national park system. Given the management prescriptions of the park's *General Management Plan* and the emphasis on the landscape telling the story of the ten-month-long Petersburg Campaign, a treatment date of 1864–65 will focus landscape treatment on the period of time associated with nationally significant events at the Crater Battlefield. In addition, the treatment date supports the preservation and management of the Siege Landscape, a fundamental resource identified in the park's Foundation Document. The treatment date should include an overlay of commemorative features, primarily monuments and plaques, which were not present during the 1864–65 period. The Crater Battlefield treatment date of 1864–65 with this commemorative overlay would not fully reflect the conditions present during the Petersburg Campaign, but preserves and enhances the landscape's ability to convey its significance as a battlefield.

The Crater Battlefield landscape will be carefully preserved, fostering improved understanding of the historic campaign, siege, and defense of Petersburg including the causes, impacts, and legacy of these events and themes to individuals, communities, and the nation. The role of landform in battlefield tactics will be conveyed through limited clearing of formerly open fields that have grown into woodlands after World War II. The rallying point of the United States Colored Troops (USCT) and the approach route of the Confederate counterattack, both central to the battle narrative, will be preserved and interpreted by clearing the smallest practical area of second-growth woodlands. Long-term preservation of historic earthen structures and engineered slopes will be promoted by removing large diameter, non-historic trees that have been allowed to grow directly upon historic surfaces.

ENDNOTES

1 Horace H. Burbank, "The Battle of the Crater," War Papers, Main MOLLUS, I, 286. As quoted by Michael A. Cavanaugh and William Marvel, *The Petersburg Campaign: The Battle of the Crater "The Horrid Pit" June 25 – August 6, 1864*, 2nd ed., Virginia Civil War Battles and Leaders Series (Lynchburg, VA: H.E. Howard, Inc., 1989), 40.

Site History

THE CRATER BATTLEFIELD AND THE CITY OF PETERSBURG

Located within the municipal limits of present-day Petersburg, Virginia, the Crater Battlefield is situated on the south side of the Appomattox River within a narrow geological zone, the Fall Line, which divides Virginia's Piedmont Plateau and the Coastal Plain. Twenty-two miles south of Richmond, this landscape was important in encounters during both the American Revolution and the War of 1812. A fall-line city near the coast, Petersburg and the surrounding region were integral to the various war efforts as a nucleus from which goods and people could be conveniently transported. Petersburg featured a small but useful commercial waterfront and trade improved greatly after 1837 when a railroad was completed between Petersburg and the port of City Point where the deeper water of the James River was more welcoming to large vessels. By 1850, more than two hundred years after the English first settled this area, Petersburg had become a bustling regional railroad hub with an industrial and agricultural district featuring a large tobacco market and flourishing cotton mills serving Norfolk, Lynchburg, and Weldon, North Carolina.[1] Additionally, thriving commerce made the area a center for skilled free blacks and their families.[2] By 1860, Petersburg was Virginia's second largest city and supported a population of 18,266. Slightly over half the population was African American, consisting of 3,644 freedmen and 5,680 slaves, and the city was considered to have the largest concentration of free blacks in the South. The battlefields and fortifications surviving today at Petersburg, including the "Crater," represent a tangible link to the history surrounding the city's key role as a component of the widespread system of Confederate defenses surrounding Richmond. The project area's significance within the context of the American Civil War began during late spring of 1864. The worst six weeks of bloodshed in the war had just transpired northwest of Fredericksburg in cut-over second growth woodland known as "the Wilderness." From there, the fighting continued, stretching in an arc southward via Spotsylvania and then on to Cold Harbor. It was there that Grant's Federal forces failed spectacularly in a costly attempt to flank Lee's army and break through to Richmond.

To bring an end to the war, finalizing the South's secession from the United States, Lee hoped to draw Union forces into repeatedly attacking Confederate fortifications. Lee reasoned that he might protract the war and exact a toll on Federal troops that would beleaguer the American public. It was hoped that this in turn would prepare the way for President Lincoln's defeat in the November 1864 election, leading to capitulation to Confederate claims of sovereignty over

the South.[3] Under such a scenario, plantation agriculture, irregular taxation, and slavery would continue unhindered by Northern ideals or interference.[4]

The ambiguous outcome of many battles and skirmishes during the ten-month long Siege of Petersburg, and the interminable intervals between the shooting, meant soldiers spent the greater part of their time fending off the heat, flies, starvation, and boredom, in between bullets. In counterpart to the war's shorter and often more well-publicized engagements, the story of Petersburg confronts uncomfortable truths—pulling aside romantic myth to reveal the horrible details of wasted lives and wretched deaths. Over ten percent of the casualties of the American Civil War occurred in and around Petersburg with the Federal attackers losing nearly 43,000 men while the Confederates experienced approximately 28,000 casualties.[5] In addition to combat fatalities, many soldiers died of wounds and injuries after fighting had ceased.

PROLOGUE: PRIOR TO 1860

The following account of the early history of the landscape surrounding the Crater Battlefield borrows liberally from the 1985 "Archaeological and Historical Survey of Fort Lee, Prince George County, Virginia: Final Report and Appendices" prepared by MAAR Associates, Inc. Lying immediately east of the Crater Battlefield, this survey of Fort Lee's archeological resources provides an impressive overview of the natural and cultural history of the battlefield region, especially Native American history.

Human settlement in eastern Virginia may be classified according to three discrete periods before the arrival of European explorers and settlers in the late sixteenth and early seventeenth centuries. During these three intervals, comprising thousands of years, American Indian settlement patterns responded to dynamic climatic conditions. Traditionally identified as the Paleoindian, Archaic, and Woodland periods, each time span can describe findings related to population levels and distribution of native groups throughout Virginia's coastal plain or Tidewater region. Settlement patterns transitioned from resource rich coastal locations during the Paleoindian period. Coastal inundation following the retreat of glacial ice prompted settlement of interior upland and wetland locations during the Archaic Period. During the Woodland period, settlement patterns incorporated cultivation of crops leading to more stationary lifeways. Cultivation of crops favored sites characterized by fertile inland floodplains within major rivers estuaries such as the James and Appomattox Rivers.

During the Paleoindian period (ca. 11000 BCE to ca. 8000 BCE), human settlement and sustenance responded to the relatively cool climate of the late Pleistocene. The Laurentide ice sheet covered much of the North American

continent, lowering air temperatures regionally, and favoring a boreal forest dominated by pine and spruce evergreen trees.[6] Paleoindian groups are believed to have maintained seasonal encampments in resource rich areas where flora and fauna were easily procured or near sources of crystalline stone required for the fabrication of weapons and tools. Wider ranging seasonal encampments were occupied to gather natural resources, be they of stone, minerals, or plant and animal life.[7] The Crater Battlefield landscape, perched on an upland watershed boundary dividing the Chesapeake Bay and the Albermarle sound, makes it likely that Paleoindian activity may be encountered nearby the project area.[8]

Following the end of the Pleistocene and the extinction of mastodons, mammoths, and other North American Pleistocene megafauna, Archaic period (ca. 8000 BCE to ca. 1200 BCE) settlement patterns responded to the warming climate, the retreat of glacial ice, and rising sea levels. The melting of miles-thick ice sheets contributed to the flooding of the Chesapeake Bay estuary, dislocating native peoples and encouraging inland settlements sheltered within the floodplains of major rivers. Organized into small social groups, an annual cycle of movement over a large area was practical for Native Americans living during the Archaic period. The location of the Crater Battlefield near the physiographic Fall Line separating Piedmont uplands and Coastal Plain lowlands, in concert with this location being near a dividing line separating major watersheds, suggests the possibility of encountering an Archaic period presence and activity within the study area.

The Woodland period (ca. 1200 BCE–ca. AD 1600) is traditionally differentiated from the Archaic by the development of ceramic and pottery craft, as well as growing reliance on rudimentary "slash and burn" cultivation of staple crops. The practice of ceramic crafts and agricultural cultivation required a corresponding reduction in the mobility and practical range of cultural groups.[9] Populations during this time thus began coalescing into sedentary villages located near rivers and floodplains where there was fertile soil, favorable terrain, and plentiful game.[10]

During the Protohistoric and early Historic Periods, at the time of European contact, the area surrounding the Crater Battlefield was inhabited by the Algonkian-speaking "Appomattoc" tribe, its' principal towns located at Bermuda Hundred Point (at confluence of the James and Appomattox Rivers), on Swift Creek, and on Rohoic Run.[11] The Appomattoc lived in proximity with the Weanoc tribe. Sharing the Algonkian dialect, the Weanoc group occupied both sides of the James River from near the mouth of the Appomattox River to eastern Prince George County.[12] The local presence of the watershed divide separating two vast drainage systems continued to be of importance as it had been for thousands of years. During the Woodland Period, the watershed divide appears to have marked the cultural boundary between the Algonkian-speaking peoples of the circum-Chesapeake Coastal Plain and such Iroquoian-speaking groups as the Nottoway and the Meherrin to the south.[13]

Widespread contact between English settlers and Native American populations increased markedly in 1607 with the settlement of Jamestown. Interactions between the two groups initially focused upon the trade of English goods for food.[14] Pamunkey Paramount Chief Powhatan had been well aware of Spanish and English forays into North America prior to this, including Sir Walter Raleigh's disastrous "Lost Colony" of "Roanoke" (1587–1590). Perhaps responding to European incursions, Powhatan had successfully assembled a coalition of dozens of Algonquian-speaking tribes before 1607 when English settlers established Jamestown.

Powhatan took part in trade with the English keen to acquire a variety of items and firearms that might add to his eminence and power. As John Smith and William Strachey reported of Powhatan's involvement in the alleged slaughter of the Roanoke colony, the English failed to share the chieftain's interest in establishing an arms trade. This imbalance of power, a spirit of vindictiveness toward Powhatan, and the insatiable needs of the English, all lead to increasingly violent encounters.[15] Early narratives chronicling the progress of the Virginia Colony document numerous visits by the colonists to the area inhabited by the Appomattoc.[16] These included the late 1611 destruction of the Appomattoc's principal town at the confluence of the James and Appomattox, so ordered by Sir Thomas Dale during the First Powhatan War (1609–1614):

> About Christmas following, in the same yeere 1611. in regard of the injurie done us by them of Apamatuck, Sir Thomas Dale, without the loss of any, except some few Salvages, took it and their Corne, being but five miles by land from Henrico: and considering how commodius it might be for us, resolved to possesse and plant it, and at the instant called it the new Bermudas; whereunto hee hath laid out and annexed to the belonging freedome and corporation forever, many miles of Champian [open land] and Woodland ground in several hundreds, West Sherly hundred, and Digs his hundred (Smith 1907:305-306).

Dale, who while in transit had been shipwrecked in Bermuda for a span of ten months, arrived in Virginia in the autumn of 1609. Smith's 1611 account of Dale's actions mentions the establishment of "New Bermuda." Charles City County, one of Virginia's eight original "Shires" was established out of the former Bermuda Hundred "Incorporation" in 1634 following revocation of the Virginia Company's charter. The newly designated Charles City County spanned the Appomattox River, bounded by Henrico County to the north and James City County to the south.

ENGLISH SETTLEMENT AT THE APPOMATTOX FALL LINE ZONE

Responding to the intractable hostility between English settlers and the allied forces of Chief Necotowance (1600–1649), a frontier fortress was constructed in 1645 near the geographic fall-line on the south bank of the Appomattox River and named as "Fort Henry."[17] Garrisoned with forty-five soldiers drawn from

surrounding 'shires,' the fort was commanded by Abraham Wood (1610–1682), a former indentured servant who had amassed thousands of acres through royal land patents.[18] Wood administered Fort Henry as an outpost on the colonial boundary and as a western gateway, allocating passes to settlers and striped badges to Indians for passage across the boundary into either region. At the direction of Governor Berkeley, in 1671, then Major General Wood commissioned Captain Thomas Batte (1630–1690) and Robert Fallows [Fallam] and an Appomattox Indian guide to explore Virginia's western frontier. That very year, Peter Jones, Major Wood's son-in-law, received command of Fort Henry, opening a trading station nearby that became known as Peter's Point. The combined trading enterprise became a center of fur trade, a threshold to western exploration, and later became known as Petersburg. Members of the local tribe established a village just west of the fort. Indian Town Creek, named for this native settlement, was also called Old Town Creek and later, Rohoic Creek marking the approximate western limits of present day Petersburg.

Architect and architectural historian Gibson Worsham evaluates Petersburg's origins as similar to other Virginia settlements of the seventeenth and eighteenth centuries; beginning as an informal military outpost and trading village prior to formal surveys. Yet from these beginnings, the current city, as Worsham explains, ultimately coalesced out of a complex "nest" of independent proprietary towns, separated from one another by the river and its various tributary creeks.[19] By the end of the Revolutionary War, the area surrounding the falls of the Appomattox River was host to five separate settlements, these subdivided by narrow unclaimed parcels featuring undesirable or otherwise difficult topography, marshland, and local creeks draining to the river (Figure 2).

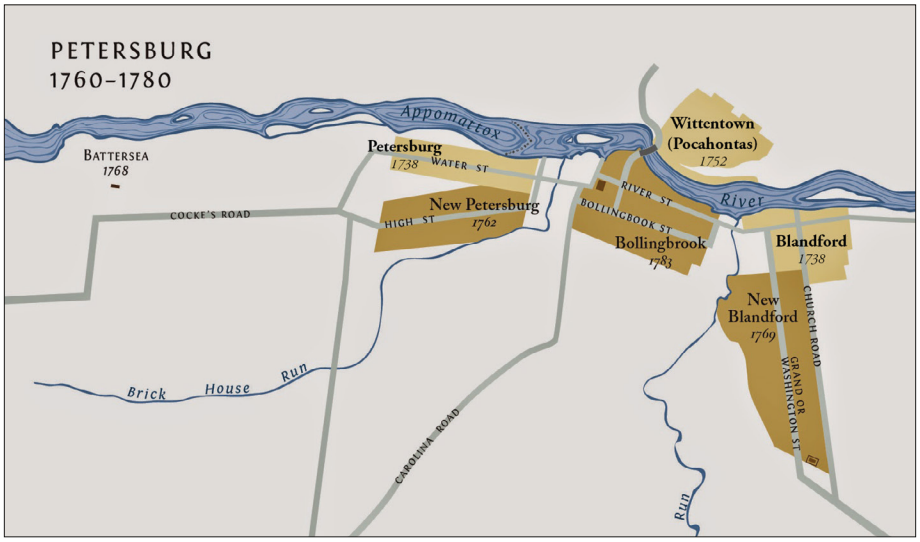


Figure 2. Diagram of the six separate settlements established by 1783 that would be incorporated into Petersburg. Plan view (http://urbanscalepetersburgvirginia.blogspot.com/2014/04/the-urban-history-of-petersburg-part-ii.html).

The Blandford settlement, east of Petersburg and below the falls, was begun in 1738, established on behalf of trader Colonel William Poythress (1635–1763), the enterprising fifth son of John Poythress and Christian Peebles. The new settlement held great promise for Poythress, occupying a place in the river where vessels of considerable draft could successfully navigate, load and unload cargoes of tobacco and other wares. The practicality behind this eastward drift of local settlement was further supported by construction of a fine new parish church building atop Wells Hill, south of the new town. Blandford was serviced by a central road or avenue leading to the new church, a road that was later extended after 1783 to the distant town of Jerusalem [Courtland] in Southampton County, a place that in time would become the birthplace of Confederate Major General William Mahone (1826–1895).

The heirs of Thomas Batte (the explorer) continued to bear close relations regarding early development of Petersburg as well as neighboring Charles City County to the south. It was a portion of the former Batte family "Spring Garden" estate that ultimately became the Crater Battlefield. The first mention of the "Spring Garden" place name for the vast tract surrounding the 1864 battlefield was recorded in 1654 in the pages of the Charles City Order Book.[20] There, William Batte (1632–1673) documented his extension of entailed rights to his brothers Thomas (1630–1690) and Henry Batte (1635–1690) to what elder brother William referred to as his "Spring Garden" plantation. After the part of Charles City County south of the Appomattox River was subdivided creating Virginia's Prince George County in 1701, rent rolls indicate 1,200 acres in possession of the "orphans of Mr. Henry Batte."

Twenty years later, in 1721, the Prince George County Spring Garden tract was legally partitioned among Henry Batte's five surviving daughters.[21] By the late eighteenth century, following the abolishment of the practice of entail, separate parcels making up the former extents of the "Spring Garden" tract of approximately two-square miles of land area had been subdivided into several fee-simple properties held by members of the extended Batte, Peterson, Bland, Harrison, Taylor, and Thweatt families.[22]

Just prior to the American Revolution, George Keith Taylor (1769–1815) was born to local merchant Richard F. Taylor (1739–1801) and Mary Field as their first son, the family dwelling within the former bounds of the Spring Garden tract, which appears to have become by that time a liberally applied placename for the surrounding countryside southeast of Petersburg. The Taylor family home was destroyed during the war (Figure 3).

Figure 3. ***Sketch of the Skirmish at Petersburg,*** **published circa 1783 (Norman B. Leventhal Map Center at the Boston Public Library, http://www.leventhalmap.org/id/n51351).**

Upon reaching his legal "majority" in 1790 at the age of twenty-one, Richard F. Taylor conveyed his "Spring Garden" lands to his son George Keith.[23] After completing studies at the College of William and Mary, the younger Taylor began his law practice in 1795 and in 1799 wed Anna Jane Marshall (1799–1866), of Fauquier County, the sister of Chief Justice of the Supreme Court (1801–1835) John Marshall (1755–1835). George Keith Taylor served in the Virginia House of Delegates (1795–96; 1798–99) and was later nominated by President John Adams to the US Court of Appeals Court for the 4th Circuit, and confirmed by the United States Senate in 1801. His service as a judge was brief, ending in 1802 as a result of the abolition of that court. Thereafter, Taylor pursued private law practice until his death in 1815.[24]

Following Judge Taylor's death, his "Spring Garden" acreage was devised to his heirs or otherwise sold in the course of settling his estate. Taylor's widow apparently returned to Fauquier County and lived a long life until her death in 1866. Three-hundred and sixty four of Taylor's Spring Garden acres north of the "Hall's Field Road" and south of the river and the "Palestine Line" [*sic* palustrine for wetland] were sold to Colin Alfriend whom later married Rebecca Heath. Other purchasers of Judge Taylor's lands included John Clarke (34.25 riverfront

acres of wetland meadow, lot #11), Robert Prichett (five 16.25 acre lots, 81.25 acres); Belefield Starke (16.25 acres, lot #6), Drury Buage (sp?)(16.25 acres, lot #7), Daniel Vaughn (16.25 acres, lot #8), Peyton Mason (16.25 acres, lot #9), John James Thweatt (16.25 acres, lot #10). One-hundred and eighty acres south of the referenced "Halls Field" road were identified in 1818 as yet to be sold. Judge Taylor's young daughter Elizabeth Marshall Taylor (1804–1900), is indicated in the 1818 survey documentation as the owner of adjacent lands bordering the "New Market Ditch" (Figure 4).

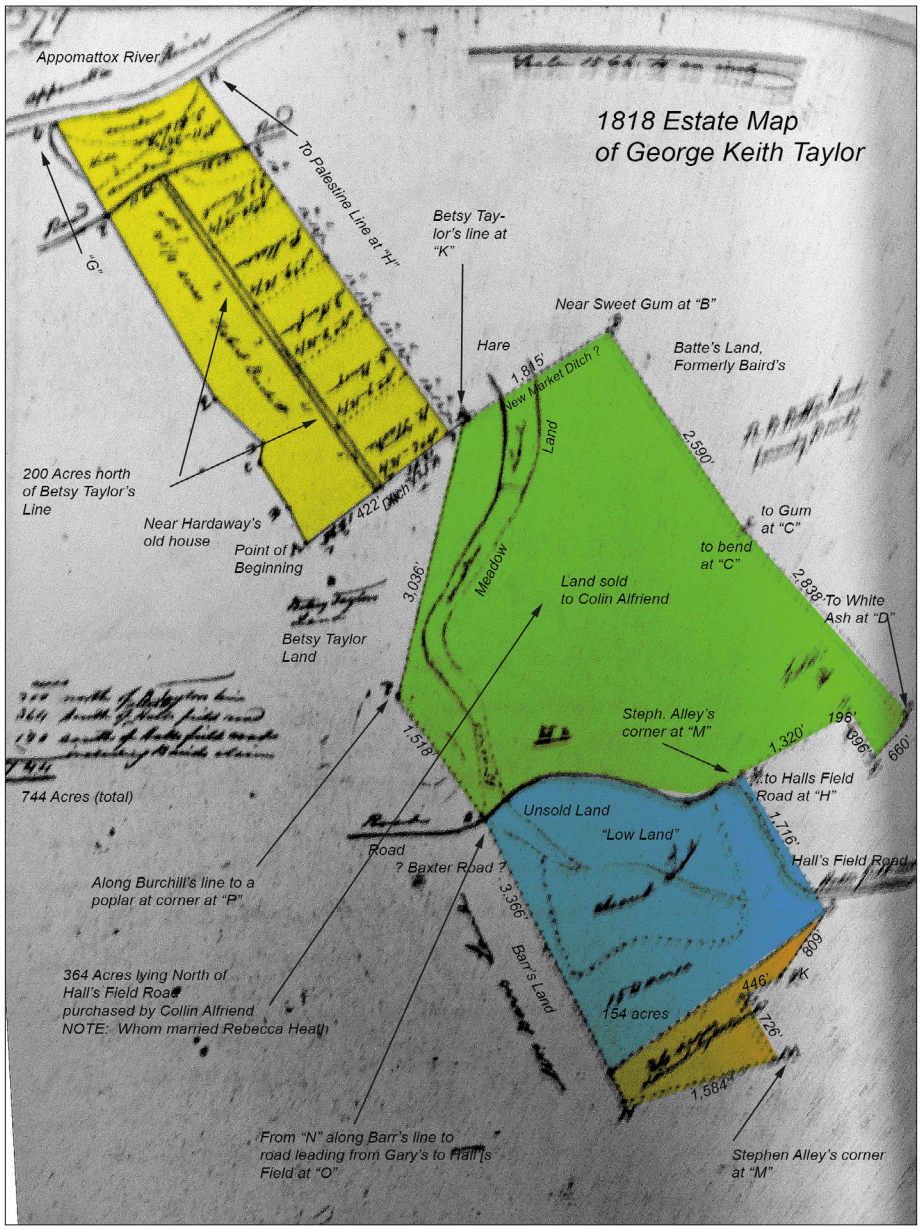


Figure 4. Estate map of George Keith Taylor showing the division of Taylor's "Spring Garden" acreage after his death in 1815. Left of the highlighted tracts, the "Betsy Taylor Land" is conveyed to Richard Byrd Taylor and becomes the site of Union defensive lines and fortifications during the Petersburg Campaign. Plan view, 1818 (Prince George County Deeds).

In 1834, a powerful storm tore through the local area, attracting the notice of the publication *"Railroad Locomotives and Cars."* The published account of the storm describes placenames and local inhabitants, and in the process captured the qualities of the landscape that at that time had been largely shorn of tree cover. "Hall's Field" is noted as the plantation of Wm. Baird; "Hickory Hill," the plantation of Wm. Shands, Jr.—the storm destroying the Shands cotton gin and stable. The storm was said to have been a tornado beginning its course at "Walnut Hill" the Wilcox residence (west of Crater Road), to "Preston," the residence of Mrs. Ann Thweatt (*lot #10 above*) "you have a vista scarcely interrupted by a solitary tree, a distance of four of five miles."

It is likely that those lands identified in 1818 as having been devised to "Betsy" Taylor were purchased in 1848 by her widowed aunt Mary Harrison Taylor. The three-hundred and five "Spring Garden" acres purchased by the widow Taylor were nevertheless devised to her son William Byrd Taylor (1818–1875), following her death in 1851, only a short time later. William Byrd Taylor, who owned the property on the eve of the Civil War, would return to the ruined property in 1865 to begin rebuilding his livelihood.

The development of Petersburg, and other Tidewater Virginia settlements, during the seventeenth and eighteenth centuries resulted from their location on the navigable reach of rivers that extended to the Chesapeake. Road or turnpike construction, followed by railroads would expand the transportation network and commercial reach of Petersburg prior to the Civil War. In 1853, the Petersburg and Jerusalem Plank Road Company was incorporated and began construction on an improved the route between the city and Jerusalem (presently Courtland) roughly 45 miles southeast in Southampton County. Creating a plank or corduroy road involved laying logs side-to-side to form a wood roadbed above muddy soils and boggy ground. However, the technique required constant maintenance and the region's burgeoning commerce required more durable and consistent transportation.

As travel began on the completed Jerusalem Plank Road, Petersburg was already served by a railroad line heading roughly south to Weldon, North Carolina, and one heading north across the Appomattox River to Richmond. Plans to connect the city to a deep-water port on the Chesapeake formalized in 1851, when the Virginia General Assembly granted authority for construction of the Norfolk and Petersburg Railroad.[25] Two years later, the railroad hired William Mahone to serve as chief engineer. Mahone studied civil engineering and graduated from the Virginia Military Institute in 1847. He worked with the Orange and Alexandria Railroad and then Fredericksburg and Valley Plank Road before accepting his new position with the Norfolk and Petersburg Railroad. In 1858, the Norfolk and Petersburg Railroad was completed and consisted of 85.5 miles of track and 13 stations. Two years later, Mahone was promoted to president of the railroad

and on the eve of the Civil War, envisioned merging with rail lines to the west to provide service across Virginia's Southern Tier to Bristol, Tennessee.[26]

The railroad line Mahone supervised would confront him and Union forces on the battlefield in June 1864. The prominent circulation feature also served as a divider between the two farms that would become the site of the Crater Battlefield. West of the railroad, 1850 and 1860 census records indicate that William H. Griffith owned 130 acres of improved farm land. He lived with his wife, five children, likely his mother-in-law, and six slaves, one of whom he reported as a fugitive from the state in 1860. The remaining slaves included three women, a teenage boy, a two-year old girl, and a one-year old boy residing on the property in two slave houses. The agricultural census reported Griffith's farm valued at $1,300 with $100 in livestock and having produced 200 bushels of Indian corn.[27]

East of the railroad line, records show a more prosperous William Byrd Taylor. Taylor owned 425 acres of improved farm land and appears to be a bachelor with 21 slaves, two of whom he reported as a fugitive from the state in 1860. Taylor's remaining slaves included three women, ten men, one teenage girl, three teenage boys, a two-year old girl, and a five-year old boy all likely living among six slave houses.[28] With this enslaved workforce, the agricultural census reported Taylor's farm valued at $6,000 with $703 in livestock and having produced 1700 bushels of winter wheat, corn, and Indian corn.[29]

CIVIL WAR

In 1820, a compromise was reached concerning the geographic future of slavery in the United States. Missouri was admitted to the Union as a slave state, yet enslavement was thereafter prohibited elsewhere north of the new state's southern boundary. Thomas Jefferson, aware of the implications of this Missouri Compromise to the fledgling nation, wrote from Monticello, "This momentous question, like a firebell in the night, awakened and filled me with terror. I considered it at once as the knell of the Union."[30]

Bells did indeed peal in Richmond on April 17, 1861, when the Virginia Convention passed the ordinance to secede from the Union, becoming part of the new Confederacy of Southern states. At that moment, local industries, such as lead smelters, powder mills, iron works and foundries—all turned to aid the Confederate war efforts by producing weapons and other vital military material.[31] Petersburg's women contributed to the new Confederacy by working long hours in the cotton mills producing sheeting and tent cloth.[32] The railroad connecting Petersburg and Richmond became an important conduit for supplies feeding the clattering enterprise. To Ulysses S. Grant, the railroad corridor became a means to an end.

Aware of the city's strategic value, the citizens of Petersburg prepared themselves for Federal attacks. As early as 1862, Petersburg had surrounded itself with a string of fifty-five batteries inscribing a ten-mile arc around the city. These batteries were connected with an extensive system of earthworks designed by the Confederate engineer, Captain Charles Dimmock (Figure 5). At his request, the Common Council of Petersburg compelled two hundred slaves and free blacks to construct the defenses. Later, hundreds of blacks were forced into labor from the countryside.[33] These defensive works were designed to enable a relatively weak force to protect the city until reinforcements arrived. General William Mahone, a Confederate leader during the Siege of Petersburg, believed however that Dimmock's system of fortifications was, "far too elaborate and extensive for occupation by an army of the proportions to which General Lee's had never really reached."[34]

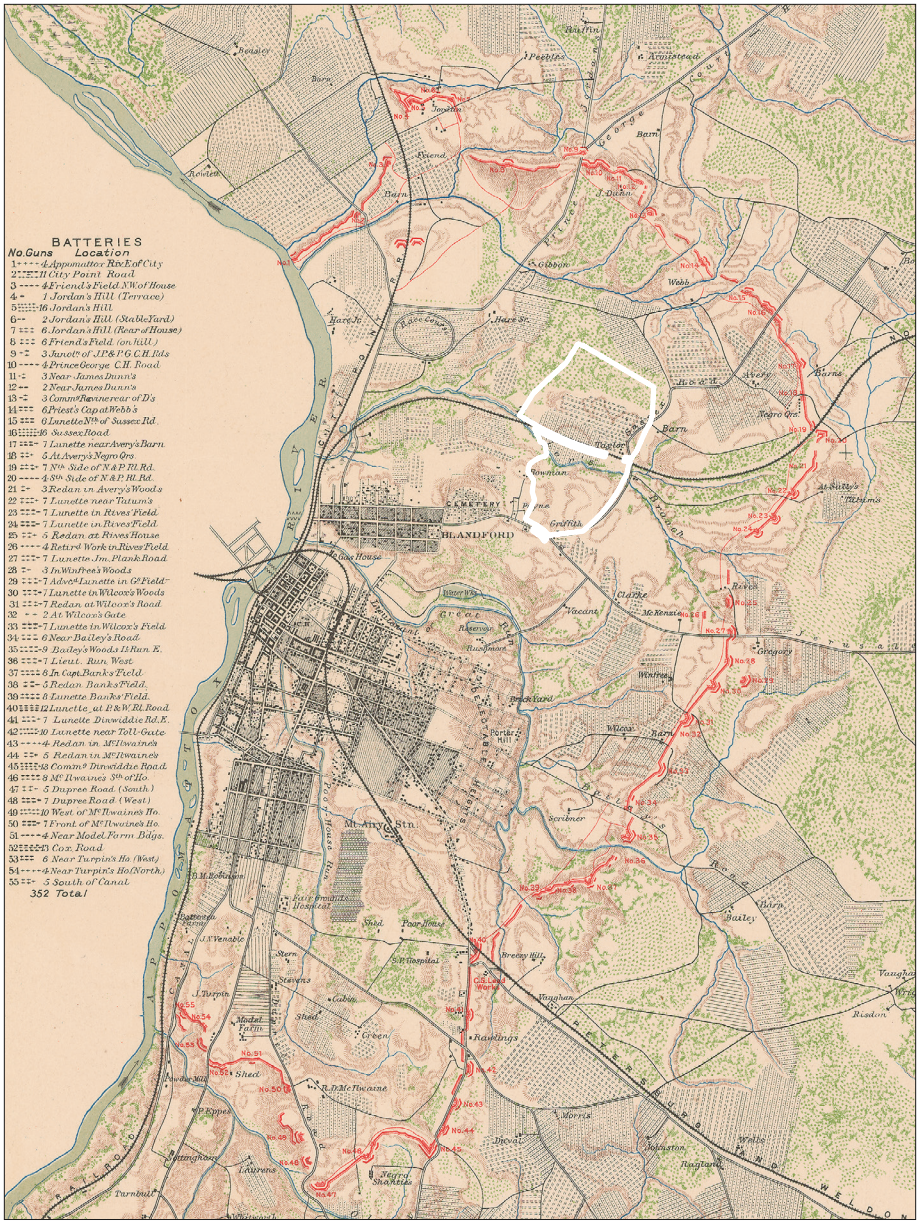


Figure 5. Detail of *Map of the Approaches to Petersburg and their Defenses*, 1863. The map, also referred to as the Gilmer Map, shows the Dimmock Line in red to the east, south, and west of Petersburg. The approximate boundary of the Crater Battlefield project area is shown in white (Petersburg National Battlefield, hereafter PETE).

GRANT FLANKS LEE

Grant's defeat at Cold Harbor on June 3, 1864, led him to alter his strategy. Rather than attacking Richmond directly, he would turn to attack Petersburg, and capturing it, would sever all but one of the railroads reaching the Confederate capital.[35] Grant's force of 18,000 arrived east of Petersburg on June 15, attacking Captain Dimmock's defensive works and overtaking nearly two miles of trenches and gun positions that evening. A period photograph documents the Confederacy's Battery V, soon after its capture by a Union force including African Americans of the US Colored Troops (Figure 6). The following day three more Union divisions arrived, consisting of over one hundred thousand men. Unleashing a blistering attack, the combined Union forces greatly advanced their positions, yet the smaller force of Confederate defenders was able to ultimately repel them and keep them from the city.

Figure 6. Confederate Battery V soon after captured by Union forces, 1864 (National Archives and Records Administration, hereafter NARA, likely Record Group 111 or 165).

The Union's advances from June 15 through 18 brought enemy lines extremely close to each other south of Blandford, in the vicinity of the Confederate Elliott's Salient. General Orlando Willcox reported, "June 18th… finally establishing ourselves nearer to the enemy than any portion of the army."[36] In spite of battlefield success, the ferocity of those four days of fighting led Grant to settle in for a siege. Union troops then entrenched on the Taylor farm "Spring Garden" and occupied a unique position—directly opposite Confederate Brigadier General Stephen Elliott, Jr.'s brigade of South Carolina troops. Fewer than 100 yards separated opposing picket lines (Figure 7).

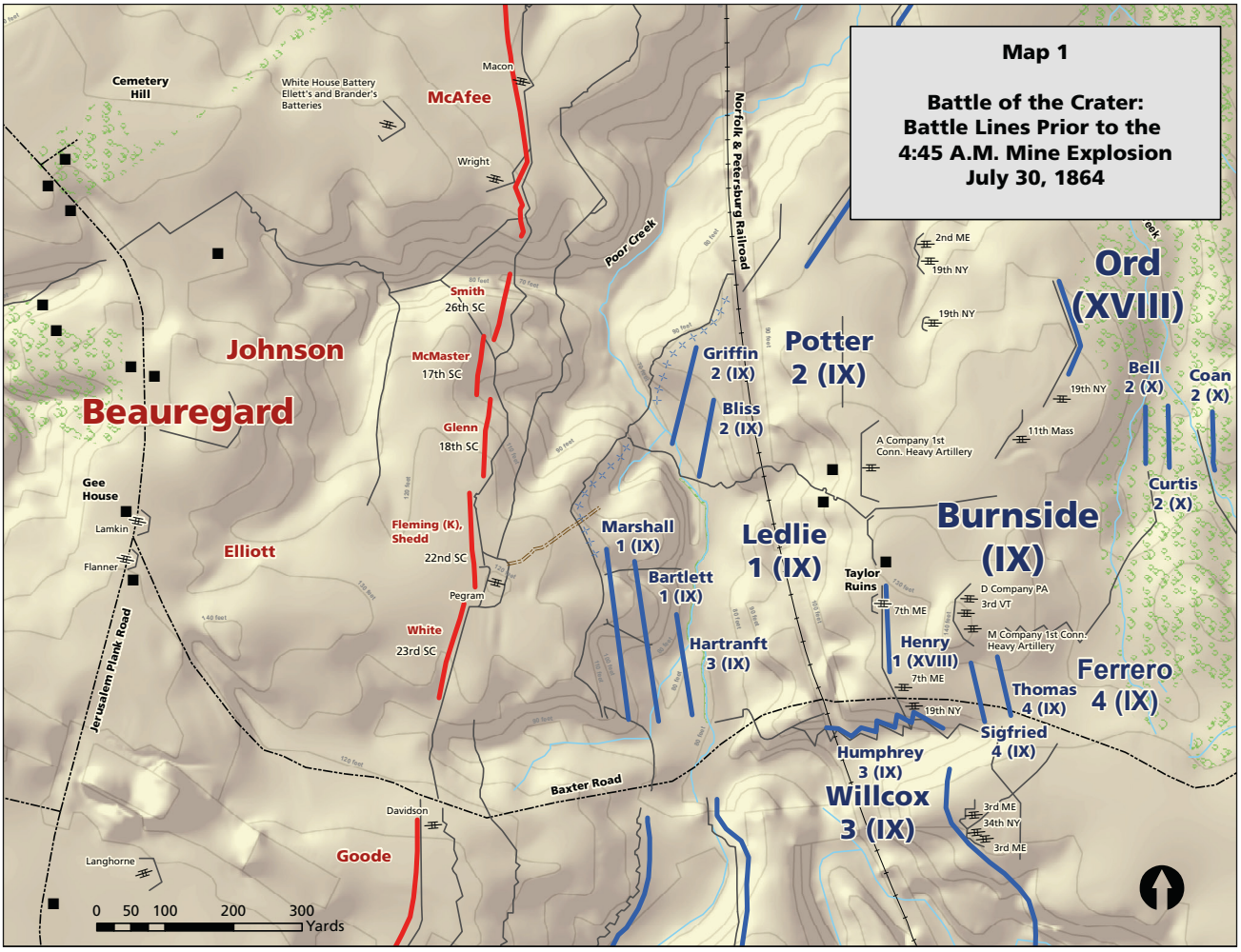


Figure 7. Approximate layout of both the Confederate and Union lines prior to the Battle of the Crater. Plan view (PETE).

THE BATTLE

It was under the frustrated tedium of the early siege, that the idea for the mine explosion was hatched. Lieutenant Colonel Henry Pleasants, Union commander of the 48th Pennsylvania Infantry, officially proposed the idea to the division commander, General Robert Potter, but it was a line from a casual conversation between two enlisted men that first inspired them. "We could blow that damned fort out of existence if we could run a mine shaft under it," one man remarked.[37] Pleasants was a mining engineer from Pennsylvania, and the regiment he led was composed largely of miners from his region. As he talked with General Potter and Major General Ambrose E. Burnside, he described the motivation of his men and the mining technology that would make the tunnel possible.[38] Pleasants also described the ingenious method to ventilate the long mine tunnel without giving any indication on the surface. The ambitious idea was to surreptitiously dig, then detonate the mine under enemy lines. Following the surprise explosion, Union forces would attack through the gap in the Confederate lines, take the town, and continue victoriously northward to Richmond. Pleasants' mining efforts required a main tunnel over 500 feet long and to limit the tunnel's bracing and possible

Confederate detection, a trapezoidal cross section roughly four feet high (Figure 8).[39] Burnside's presentation to General George Meade and his engineer Major James Duane was met with skepticism. Yet Meade allowed work on the tunnel to proceed, if only to distract the soldiers from boredom. Grant initially expressed little interest.

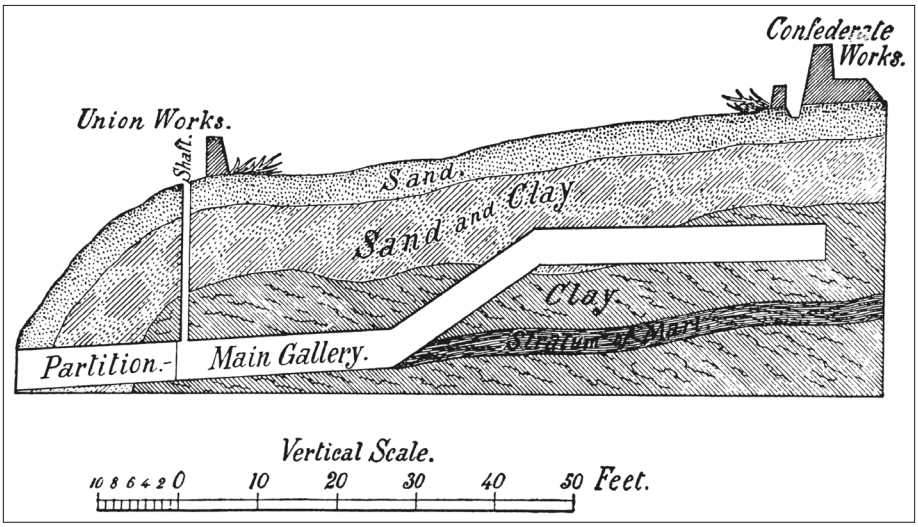


Figure 8. Longitudinal section of the Union mine tunnel. The tunnel entrance began in the west bank of the Poor Creek valley and proceeded over 500 feet to a point below Elliott's Salient. The tunnel was trapezoidal in cross section with only four feet of headroom to save on labor and scarce resources such as wood. Section, 1888 (William H. Powell, "The Battle of the Petersburg Crater," in *Battles and Leaders of the Civil War*, Vol. 4, ed. Robert Underwood Johnson (New York: Century Company, 1888), 548).

On June 25, men in the 48th Pennsylvania Infantry, directed by Sergeant Henry Reese, began excavating the tunnel that would eventually stretch 511 feet to its end below enemy territory.[40] Both the siting of the tunnel and its construction were executed in cramped quarters, without the benefit of specialized engineering equipment (Figure 9). Pleasants himself went to great trouble and danger to make accurate measurements, often drawing fire as he peered over the fortifications to survey the landscape.[41] On July 17, the tunnel was complete; its far end lay beneath the Confederate fortifications. By July 23, crews had finished two forty-foot lateral galleries, preparing them for eight powder magazines. The careful work was interrupted when Confederate deserters reported of countermining to intercept a suspected Union tunnel.[42] At this point all the Pennsylvania coal miners could do was to continue their work as quietly as possible and wait until the explosives arrived.

For weeks the 48th Pennsylvania Regiment had diligently excavated the red clay, hoping to conceal the project from the enemy. After Union forces packed the red earth chambers with four tons of gunpowder, they waited for orders to detonate the explosion and attack. During this period of waiting, the Union Major General Winfield Scott Hancock attempted to lure Confederate forces towards Richmond. Hancock's attack on Richmond just prior to the mine explosion, diverted Confederate troops away from Petersburg, leaving the surrounding fortifications minimally protected.[43]

Major General Burnside's plans for the ensuing battle were rescinded at the last minute. To spearhead the assault, Burnside had chosen Brigadier General Edward

Figure 9 (right). Three-man crews worked to advance the mine tunnel with one chipping into the earth with an modified entrenching tool, one shoveling, and one hauling debris in a cracker-box sled. The working conditions were likely more cramped than depicted in this illustration (Frank and Marie-Therese Wood Print Collections, Alexandria, Virginia).

Figure 10 (bottom). US Colored Troops encamped behind Union lines, August 7, 1864. Major General Burnside's original plan called for US Colored Troops in Brigadier General Ferrero's Fourth Division to lead the attack after the mine explosion (Library of Congress, http://hdl.loc.gov/loc.pnp/ppmsca.32443).

Ferrero's 4th Division, the only division of US Colored Troops in the Army of the Potomac. Ferrero's troops were organized into two brigades of 4,300 men who repeatedly practiced the post-explosion maneuvers during the excavation of the tunnel (Figure 10).

Burnside's choice of African American troops was questioned, yet even one of his critics recognized the limited options available, "The best men, by virtue of their greater courage, were killed first in the spring blood bath, while even the bravest of the survivors could only be driven to attack the enemy by the most fervent appeal."[44] His first three divisions of experienced white troops from the IX Corps were shell-shocked and weary, having rarely been out of combat or range of sharpshooters since the sixth of May. Burnside considered his white troops demoralized and believing the US Colored Troops, anxious to prove their worth and undiscouraged by months of sustained combat, were the better gamble.[45] One of their white commanders, Colonel Henry Goddard Thomas later remembered:

> The night we learned that we were to lead the charge the news filled them too full for ordinary utterance. The joyous negro guffaw always breaking out about the camp-fire ceased. They formed circles in their company streets and were sitting on the ground intently and solemnly "studying." At last a heavy voice began to sing, "We-e looks li-ke me-en a-a marchin' on, we looks li-ke men-er-war." Over and over again he sang it, making slight changes. The rest watched him intently; no sign of approval or disapproval escaped their lips, or appeared on their faces. All at once, when his refrain had struck the right response in their hearts, his group took it up, and shortly half a thousand voices were upraised.[46]

Yet, the day before the battle, General Burnside received word that the US Colored Troops, and their carefully orchestrated plan of attack, would not be employed. General George Meade's new orders were to lead the initial charge with a seasoned white division of the IX Corps, the very men Burnside had considered so battle-fatigued. Meade explained that he and Grant were reluctant to use "untried" regiments, and further that they feared political consequences if the first plan failed and caused heavy losses among the "Colored Regiments." As Burnside's plans were countermanded, his four commanders argued over who would lead the charge in their place—most likely agreeing amongst themselves that, in a perfect world, it should still be Ferrero's fresher black troops. Unable to reach agreement, Burnside chose the new division to lead the attack by drawing lots the night before between Brigadier Generals Robert Potter, James Ledlie, and Orlando Willcox.

Ledlie's First Division won the draw. They were to traverse around the result of the explosion, leading the advance toward northward to Cemetery Hill, near Blandford Church. The IX Corps' Second, Third, and Fourth Divisions under Potter, Willcox, and Ferrero respectively, were to support the First Division. Meade indicated each of the first three commanders was to be provided an additional regiment each of acting engineers, to construct or reverse fortifications during the fighting as needed. This assistance never materialized.[47] As the regiments packed themselves into the trenches that night awaiting engagement, the heat became stifling, the soldiers squirming in place, and trying to conceal their presence.

The above-ground Union lines stretched so close to the Confederate lines near Elliot's Salient that the Confederate artillery in this area was manned continuously by Captain Richard G. Pegram and his outfit of local artillerists.[48] The 18th South Carolina provided infantry support both in and behind the Confederate battery. The rest of the Confederate brigade lay encamped on either side of the redoubt. The 17th and the 26th South Carolina were found on the left, and the 22nd and the 23rd on the right.

Just before dawn on the morning of July 30, the Pennsylvania coal miners lit the three fuses in the tunnel. Most of the Southern infantry was asleep. The slow-burning fuses sputtered out near the halfway point, well before reaching the powder charge. The fuses were re-lit by two brave souls who re-entered the tunnel to determine what had gone wrong. A long fourteen minutes ticked by until 4:44 a.m., when the men first felt, then heard and saw the effects of eight thousand pounds of gunpowder exploding underground. It was said to have begun as a dull rumble "like a heavy gun, far away." A Union general wrote, "Suddenly, the earth trembled beneath our feet."[49] The Confederate fortifications were blown straight up with "sulphurous black smoke" about two hundred feet into the air,[50] "Then everything appeared to break up and fall in a rain of earth mixed with rocks, with beams, timbers, and mangled human bodies."[51] The explosion opened a cavernous void between 170–250 feet long, 60–80 feet wide, and 25–30 feet deep at the center (Figure 11). There were between 278 and 300 casualties as a result of the mine explosion and many of the 22nd South Carolina's Company B were buried in their trenches. The 17th, 18th, and 22nd South Carolinians and Pegram's battery all suffered substantial losses.[52]

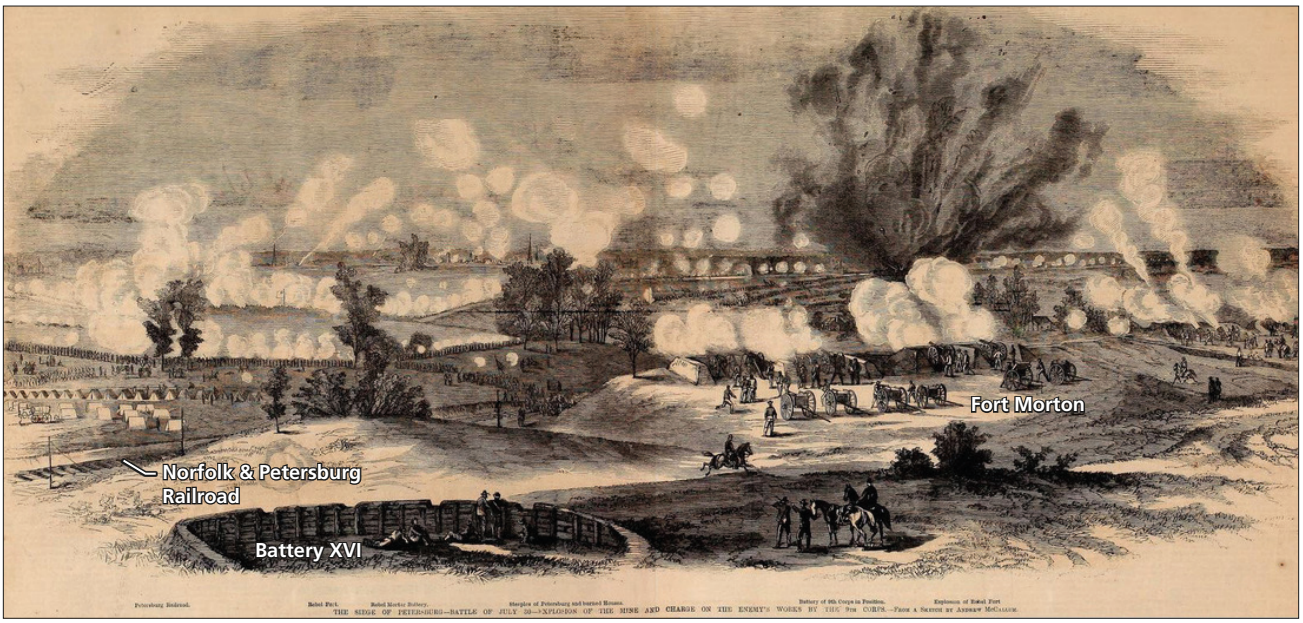


Figure 11. "Explosion of the Mine and Charge on the Enemy's Works by the 9th Corps, from a Sketch by Andrew McCallum." View northwest, August 27, 1864 (*Frank Leslie's Illustrated Newspaper*, image available at http://www.petersburgproject.org/andrew-mccallum.html).

Chaos. Five to ten minutes was consumed in gawking before the Union charge began.[53] Ledlie's division had not drilled, and rather than traverse the rim of the crater as planned, Ledlie's men entered it. Unaccompanied by engineers or equipment to scale the loose soil and steep earthen walls, the advance forward was slow and arduous.[54] Potter's division followed Ledlie's, bearing off to the right, then Willcox's division bearing off to the left. Major General Gouverneur K. Warren's V Corps were to support Burnside's IX Corps on the left. Major General Hancock's II Corps were to assist Major General O.C. Ord's XVIII Corps on Burnside's right, with a division from the X Corps reinforcing their efforts (Figure 12). The army's chief of artillery, Brigadier General Henry J. Hunt and his artillery

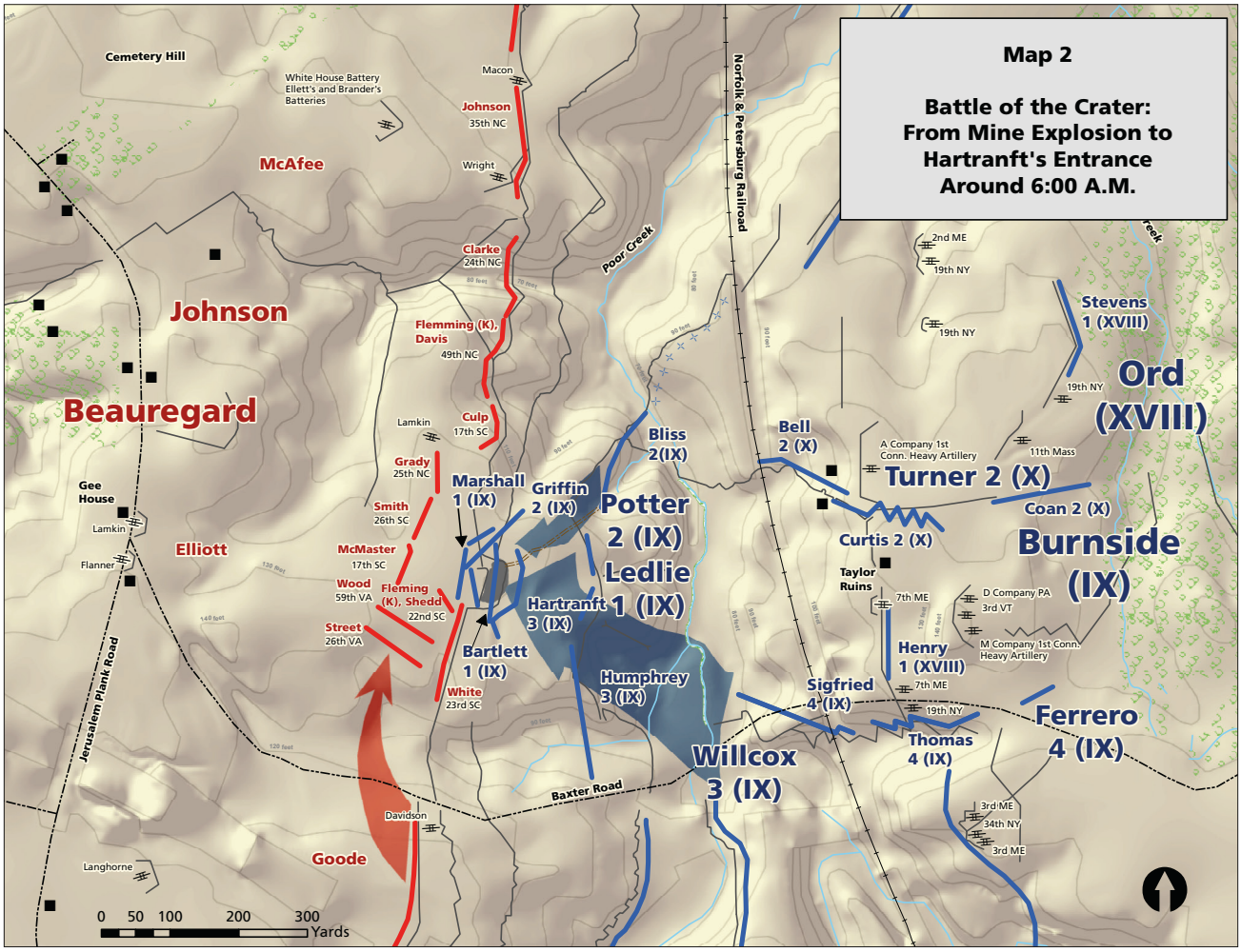


Figure 12. Approximate layout of both the Confederate and Union lines after the mine explosion. Plan view (PETE).

troops were to orchestrate an intense fusillade concentrating fire on the main points of attack. Major General Phillip Sheridan was north of the James River at Deep Bottom to perform diversionary movements, while Brigadier General James Wilson's division was directed to sweep to the west towards the Weldon railroad in order cover the left flank of the Union Army's V Corps as it moved up the Jerusalem Plank Road.[55] Amidst the tumult, the Confederates managed to rally and deflect the Union advance—trapping a great number of Union soldiers in the Crater itself, mired and floundering, unable to scale the steep slopes. While the

Union charge had been planned weeks in advance, execution of this inter-racial Union assault could not have gone worse.

About 8:45 a.m., Confederate General William Mahone arrived with additional forces, charging the enemy north of the Crater "with a wild yell."[56] Mahone and his men had approached undetected by way of a ravine just beyond the ridge west of the Crater. Between 11:00 a.m. and about 1:00 p.m., Lieutenant Bowley, a Federal soldier, described the demoralized Union forces that came under Mahone's counterattack:

> The white troops were now exhausted and discouraged. Leaving the line they sat down, facing inwards, and neither threats nor entreaties could get them up into line again. In vain was the cry raised that all would be killed if captured with negro soldiers; they would not stand up. From this time on the fire was kept up, mainly, by the colored troops and officers handling muskets. A few Indians, of the 1st Michigan Sharp-shooters, did splendid work. Some of them mortally wounded, and drawing their blouses over their faces, they chanted a death song and died – four of them in a group.[57]

George L. Kilmer, of the Union's 14th New York Heavy Artillery, recollected the worst:

> Some few declared that they would never follow 'niggers' or be caught in their company, and started back to our own lines, but were promptly driven forward. Then the colored troops broke and scattered, and pandemonium began. The bravest lost heart, and men who distrusted the negroes vented their feelings freely. Some colored men came into the Crater, and there they found a fate worse than death on the charge. It was believed among the whites that the enemy would give no quarter to negroes, or to whites taken with them, and so to be shut up with blacks in the Crater was equal to a doom of death. . . .It has been positively asserted that white men bayoneted blacks who fell back into the Crater. This was in order to preserve the whites from Confederate vengeance. Men boasted in my presence that blacks had been thus disposed of, particularly when the Confederates came up.[58]

The Confederate line was restored by 2:00 p.m., after nine hours of fighting[59] (Figure 13). Union troops had been chased from field west of the explosion to the broken redoubt, where Confederate gunfire rained down upon them. The desperate fighting resulted in enormous casualties by day's end. The Confederate victory left the antagonists at a stalemate, just as they had been the day before.[60] Pairing this loss with the Union slaughter at Cold Harbor, the press referred to Grant as a "butcher."

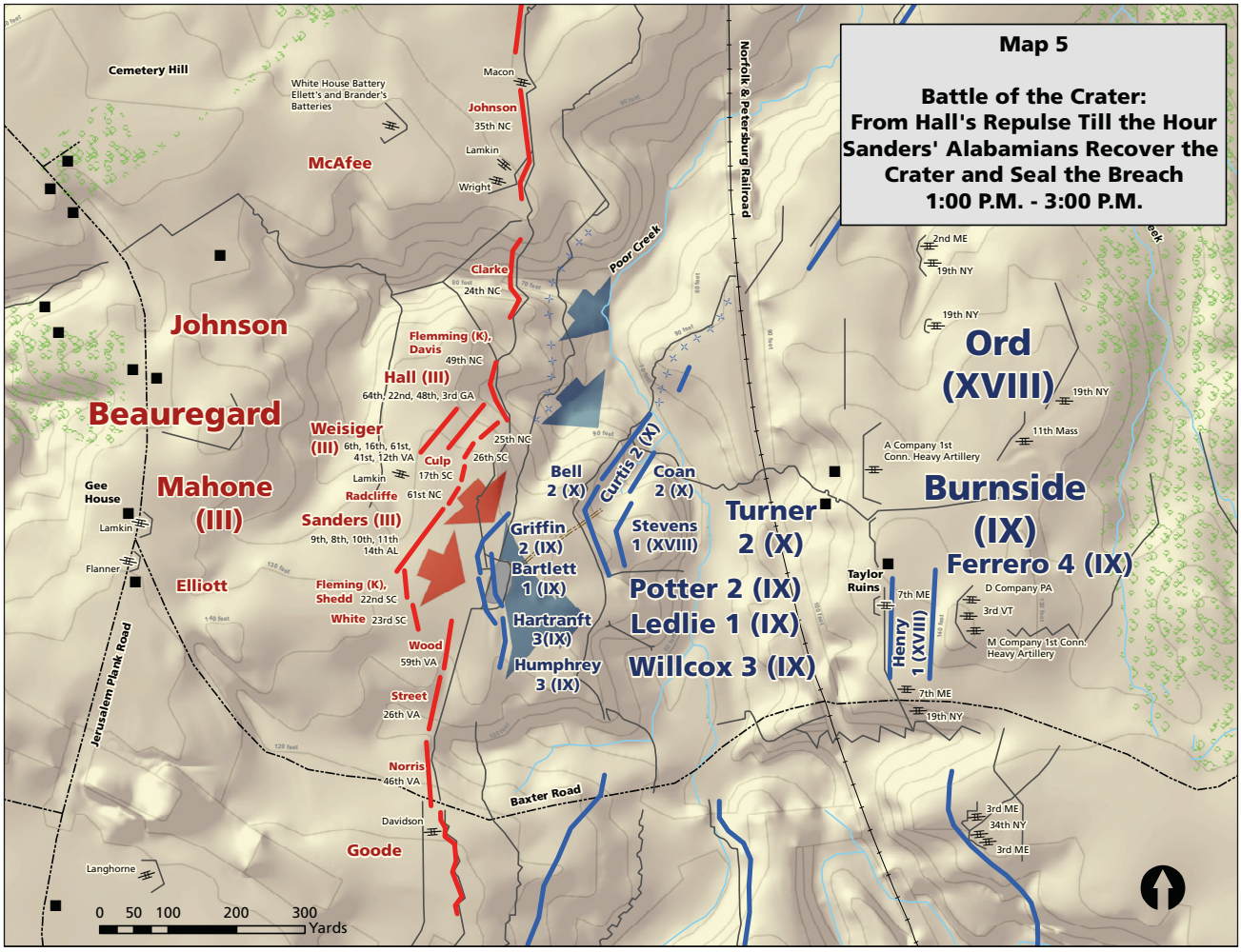


Figure 13. Approximate layout of both the Confederate and Union lines after Mahone's counterattacks. Plan view (PETE).

Truce negotiation the next day foundered as the Union troops waited for agreement from their commanders. Captured Union soldiers, both white and black alike, were taunted and abused by angry soldiers and local citizens as they were marched into Petersburg. The magnitude of the Union's loss was not immediately understood. Meanwhile the Crater, already reintegrated into the Confederate defensive line, and the surrounding area was filled with wounded soldiers, flies, and the glare of the summer sun (Figure 14). The dead began "to stink fearfully."[61] By the time the response to the belated Union's request for a reprieve was answered by Confederate General P. G. T. Beauregard, it was too late in the afternoon to begin a truce of sufficient length to bury the dead before nightfall. On July 31, Union forces were allowed to provide water and whiskey to the wounded.[62] On the afternoon of Sunday, July 31, 1864, Private Bernard noted in his diary:

> Negotiations under a flag of truce are now pending. Probably Grant wants to bury the dead between the lines. Permission was granted to water his wounded. I observed several citizens from the enemy's line take part in this act of humanity. They were probably members of the sanitary committee. I saw also a *woman* standing in the Yankee breastworks.[63]

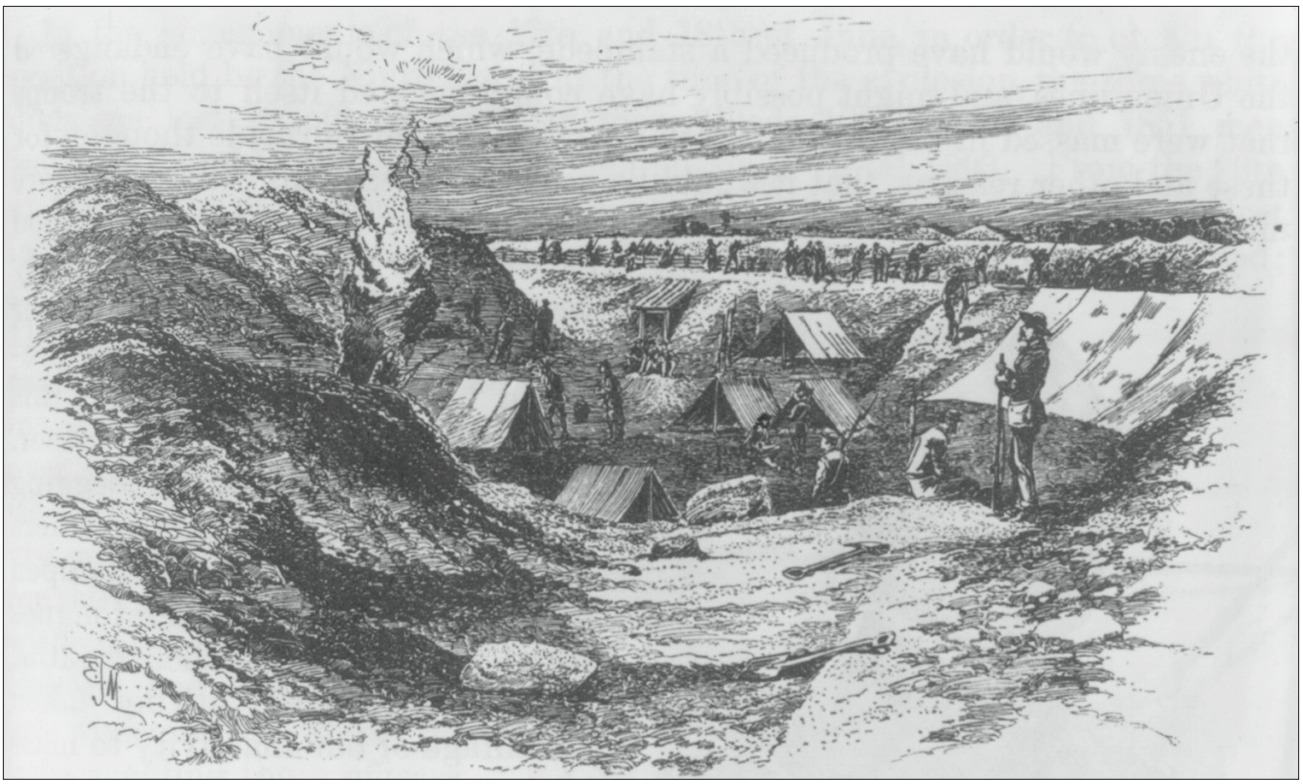


Figure 14. ***The Battle of the Petersburg Crater: The Confederate Line as Reconstructed at the Crater*****. After sealing the breach at the Crater, Confederate troops incorporated the depression into their defensive line and repaired the Trench Cavalier seen on the left. View north, circa 1887 (Library of Congress, http://www.loc.gov/pictures/item/2003669689/).**

The truce began at 5:00, the morning of August 1. By this time, the sun had burned all the bodies black.[64] In the intense summer heat, many bodies had begun to decompose; flesh yielding to the touch, making it difficult to carry the corpses. Soldiers on both sides of the lines dug long pits and hurriedly threw in the dead, anxious to be rid of the grim task. The planned four-hour truce had to be lengthened an additional two hours due to the numbers of dead. Official records indicate total Union casualties of 3,798 consisting of 504 killed, 1,881 wounded, and another 1,413 captured or missing. Somewhat fewer than 400 Confederate soldiers died in the battle, about 278 of whom perished at the moment of the explosion. More than 700 were wounded, yet only 40 were taken prisoner.[65] The total number of casualties for the US Colored Troops was 1,327 or 38 percent of the losses suffered by the IX Corps. These numbers indicate combat casualties; failing to account for the many men who lost their lives shortly afterwards because of atrocious medical conditions.[66] For the remaining months of the war following July 30, 1864, the Union and Confederate troops at Petersburg endured the trenches, exchanges of bullets and artillery shells, and waiting amidst tedium, filth, danger, and weather. The occasional skirmish or battle with the enemy, including a picket line assault during November 1864, punctuated the boredom with fear. Throughout this interval, the defensive lines and earthen fortifications of both sides were subjected to near continuous revision and embellishment. These efforts included Confederate countermining work that extended into late summer and autumn.[67]

On March 4, 1865 after waging a political campaign he felt he would not win, Abraham Lincoln's was inaugurated into his second term as president. After repeating the oath of his office, President Lincoln bowed his long frame at the waist and kissed the Bible where he had moments before held his hand. The book was open to the last page of the fifth chapter of the Book of Isaiah.[68] "And in that day they shall roar against them like the roaring of the sea: and if one look unto the land, behold darkness and sorrow, and the light is darkened in the heavens thereof."[69] On April 2, 1865, roaring was heard indeed as Grant's army stretched the Confederate troops at Petersburg over an indefensible distance. The line was broken. Lee and his army fought their way west towards Appomattox Courthouse, surrendering on April 9. With this, the citizens of Petersburg began to undo the knot of earthworks binding their city (1865 Period Plan).

Blandford Cemetery
Confederate Rifle Pits
White House Battery
Wright's Battery
Battery XIII
Norfolk & Petersburg Railroad
Jerusalem Plank Road
Cornfield Battery
Battery XIV
Union Mine Tunnel Entrance
Taylor Kitchen
Gee House
Fort Morton
Confederate Trench Cavalier
Poor Creek
Union Picket Line
Confederate Picket Line
Battery XV
Baxter Road
Zig Zag Trench
Baxter Road
Battery XVI
Davidson's Battery

Cultural Landscape Report

Crater Battlefield Petersburg National Battlefield

Petersburg, Virginia

1865 Period Plan

National Park Service
Olmsted Center for Landscape Preservation
www.nps.gov/oclp

SOURCES

1. Michler Map, NARA, Cartographic Records, RG 77: G 204-38, 1865–67
2. Park GIS Files
3. City of Petersburg GIS Files
4. Ortho Imagery, Virginia Geographic Information Network, 2013

DRAWN BY

Tim Layton
AutoCAD and Illustrator CS6, 2017

LEGEND

- Contemporary Park Boundary
- Project Area Boundary
- Building / Structure
- Forested Canopy
- Creek / Stream
- Paved Area
- Railroad
- Battery / Fort / Defensive Line
- Covered Way
- Picket Line / Rifle Trench
- Union Mine Tunnel
- Confederate Countermine
- Abatis

NOTES

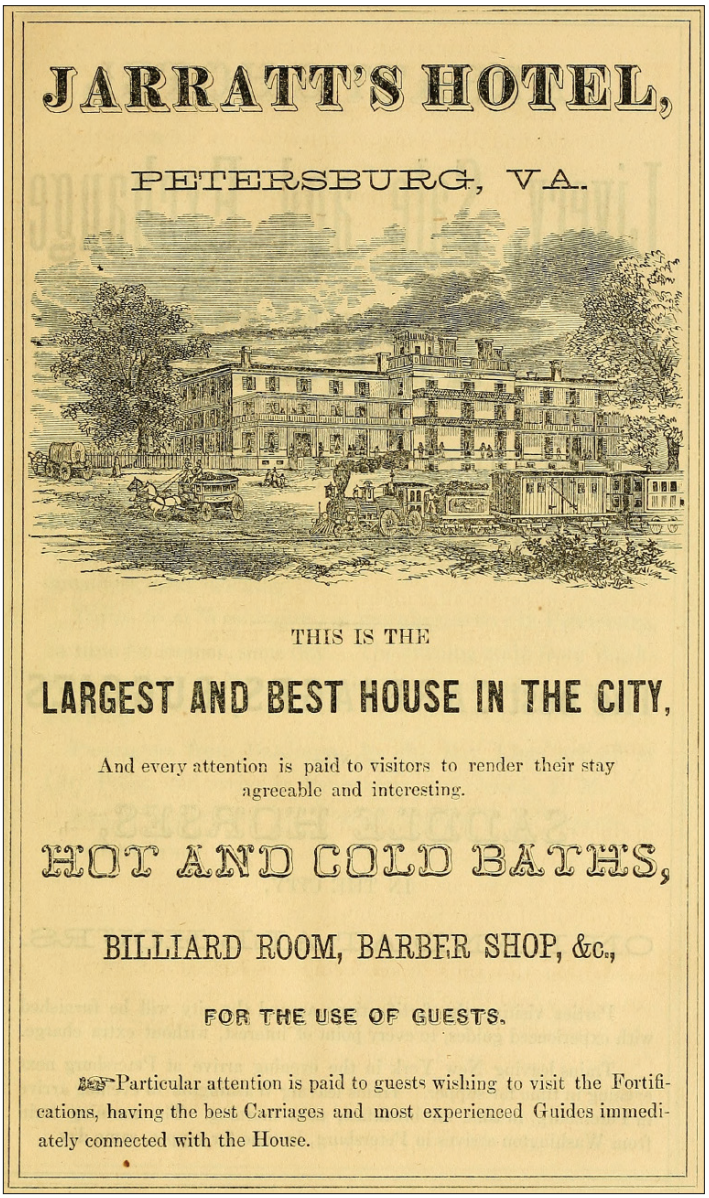
1. Projection: Virginia State Plane, South Zone, NAD 83 HARN, Feet
2. All features shown in approximate scale and location

0′ 100′ 200′ 400′

Drawing 1

POST-WAR

As early as July 4, 1865, a paroled Confederate soldier began advertising in the *Petersburg Daily Index* his own "retreat" for refreshments near the Petersburg battlefields.[70] Napoleon Hawes situated himself in the vicinity of Fort Stedman, serving lemonade at the former Union stronghold. His announcement declared: "The umbrageous foliage of the grove, the verdure of the adjacent grounds, and the famous military works immediately at the spot, all form rare attractions for the visitor and the tourists."[71] Before Lee's surrender, James H. Platt, a Union veteran of the siege, purchased Jarratt's Hotel on April 8, 1865. The hotel was located in Petersburg on Washington Street, between Market and Union Streets, and became a popular place for returning Union veterans, Freedmen's Bureau officials, and Northern tourists (Figure 15). In 1866, Platt published the first version of *A Guide to the Fortifications and Battlefields Around Petersburg*, a twenty-seven page booklet, "believed to be the first published guide to a Civil War Battlefield."[72]


JARRATT'S HOTEL,

PETERSBURG, VA.

THIS IS THE

LARGEST AND BEST HOUSE IN THE CITY,

And every attention is paid to visitors to render their stay agreeable and interesting.

HOT AND COLD BATHS,

BILLIARD ROOM, BARBER SHOP, &c.,

FOR THE USE OF GUESTS.

☞Particular attention is paid to guests wishing to visit the Fortifications, having the best Carriages and most experienced Guides immediately connected with the House.

Figure 15. ***The Guide to the Fortifications and Battlefields Around Petersburg*****. Published by James L. Platt, a Union veteran from Vermont who fought at Petersburg, the 27-page booklet featured a full-page advertisement for Jarratt's Hotel, purchased by Platt in 1865. (PETE).**

Platt's guidebook included a brief account of the siege of Petersburg, outlining an itinerary for a two-day battlefield tour.[73] The *Guide* went on to direct visitors to specific fortifications and remnants, decoding the jumble of associated terms and structures—entanglements such as fraises and abatis. Platt's *Guide* further cited the most interesting places to see: the Confederate Fort Gregg, the 50th New York Engineers' log church at Poplar Grove, the signal tower at Peebles Farm, Fort Wadsworth, Fort Sedgwick, the Crater, and Fort Stedman. This early document provides a first-person account of what Civil War residue one could see soon after the war ended.

> The space covered by the map is cut up with lines of breast-works, rifle-pits, earth-forts, thousands of soldier's huts still standing and almost unending lines of abatis (ab-a-tee). These last consist of sharpened sticks and tree tops placed firmly in the ground, and leaning outward, a few rods in front of the main lines and around the forts, arranged so as to greatly obstruct the approach of an enemy.... These are being removed quite rapidly for firewood...This, with the washing down of the many earth-ridges and rifle-pits by rains....will materially change the appearance of the whole region ere long.[74]

Prior to the war, the Crater Battlefield area was comprised of two separate farms. Both landowners returned after the departure of the armies and

turned toward reclaiming productive farms and homes from a wasteland (Figure 16). Only a few years after the surrender, a visitor to Petersburg wrote about "traces everywhere of the trail of war winding about over the hills, but to define and mark with the vision a continuous line are difficult."[75] Union veteran John D. Billings observed the rapidly recovering landscape during his 1888 visit to Petersburg. While looking for Union Fort Morton, alternatively known as the "14-gun battery," Billings discovered that the Union fort had been dismantled. The landowner, Richard Field Taylor, explained to Billings, "This fort took up much valuable land, so I set to work carting it away. Yonder is a small corner of it."[76]

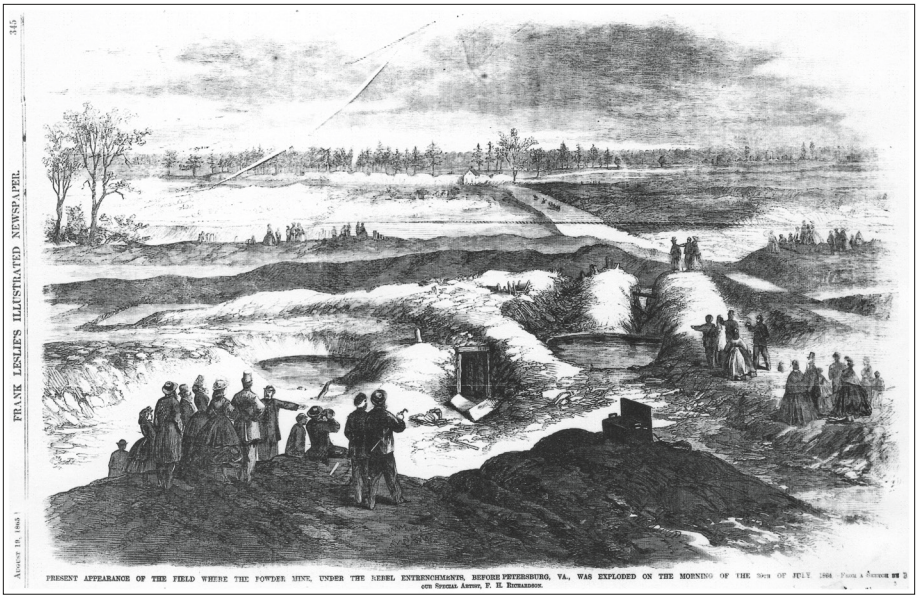


Figure 16. View of the Crater and surrounding landscape. *Frank Leslie's Illustrated Newspaper* published this graphic about four months after the war ended. At that time, landowners returned to a devastated landscape. View east, August 19, 1865 (PETE).

Early during the course of the siege, all of the buildings on Taylor's farm were destroyed, as these structures had the misfortune of occupying a location directly within the field of fire between Elliott's Salient and the 200 artillery pieces emplaced in and around Union Fort Morton.[77] The Taylor farm spanned the railroad tracks and Poor Creek, with the entrance to the Crater tunnel and the Union lines found just within the Taylor property line. Taylor's neighbor, William Griffith, also returned to his farm west of the railroad shortly after the war's end. Like his neighbor to the east, Griffith found his home destroyed and built a simple cabin for himself and his sons. Like Taylor and so many other local farmers, Griffith began the process of leveling the network of trenches and other earthworks so as to restore his agricultural fields.[78]

Before the time came for spring plowing, Griffith noticed visitors gawking at the huge pit inside his field. Sensing an opportunity much like the nearby refreshment stand at Fort Stedman, Griffith fashioned his own "battlefield attraction." He fenced off the site, laid out graveled paths and steps, and began charging admission. "Within three years, he had garnered sufficient funds through admission fees to build a saloon to serve guests."[79] He also assembled a small museum of artifacts that he and his family operated through the end of World

War I. Griffith's museum artifacts were later transferred in large part to Petersburg National Battlefield.[80] The guests pictured in an 1866 photograph predated Griffith's improvements, yet clearly shows that vegetation was already returning to the once barren fields (Figure 17).

Figure 17. Early visitors to the Crater on the Griffith farm. Note the small trees growing immediately beyond the Crater rim and rebuilt farm buildings on the Taylor farm property. View east, 1866 (PETE).

In April of 1866, Brevet Lieutenant Colonel James M. Moore arrived in Petersburg to survey the area and establish Poplar Grove Cemetery—a new national cemetery to be under the administration of the Quartermaster General's Office of the US Army. Moore assembled a ninety-seven-man reburial detail. These men were to disinter large numbers of Union soldiers who had been hastily buried at the front during the Petersburg siege for reburial into the new cemetery. Moore's team found the greatest density of bodies at the site of the Crater Battle, where they removed remains from mass graves. Ironically, the burial detail re-interred the dead from the Crater site on the second anniversary of the battle and that day uncovered nearly 300 unidentified bodies. Apparently the heavy soil had excluded oxygen to such a degree that many of the corpses remained relatively intact.[81] Moore's team recovered a total of 669 bodies from the site.

Post-war photographs show the Crater Battlefield remained primarily barren of vegetation (Figure 18). Yet with the departure of the armies, it did not take long for it to become overgrown with shrubs and young trees. One early visitor described the Crater site as "in the midst of weedy fields," but was still able to discover the mouth of the Union tunnel, as well as the Confederate countermines.[82] Artist sketches from as early as 1886 show some tree growth in and around the Crater, and even along the tunnel path. An 1891 photograph shows the Crater covered by a grove of young pine and cedar trees (Figure 19).

Figure 18. Early visitors inspecting the Crater site. Note the mine tunnel outlet on the left covered with a tarpaulin and the skull and bones in the pit to the right of the gun. The skull, bones, and gun are likely props placed for the benefit of the photographer. View east, 1867 (PETE).

Figure 19. Groves of young Eastern redcedars and loblolly pines growing on the Crater. Less than 30 years after the end of the Petersburg Campaign, woody vegetation is recorded growing on the Crater. Unknown view, 1891 (PETE).

Numerous post-war visitors recorded their experience visiting the Crater, and of William Griffith's tourist accommodations. Two early accounts describe the place quite differently from the landscape visible today. "Several hundred yards across the field, on the brow of the hill, yawned the Crater, looking black and uninviting," wrote one tourist in 1867.[83] A visitor in 1868, the Reverend David Macrae, remembered later in 1871, "There is a vast hollow in the earth, though the look has changed…in consequence of the falling in of the sides."[84] Although tourists wrote graphically of bullets and shells still to be found in and around the Crater, many also described the improvements for visitors such as paths, steps, the museum, and the saloon. One sarcastic guest described a road sign that pointed "To the Crater," and remarked that Griffith planned to "preserve the Crater intact, as the war had left it…and with that view he enclosed it and added some conveniences and attractions"[85] (Figure 20).

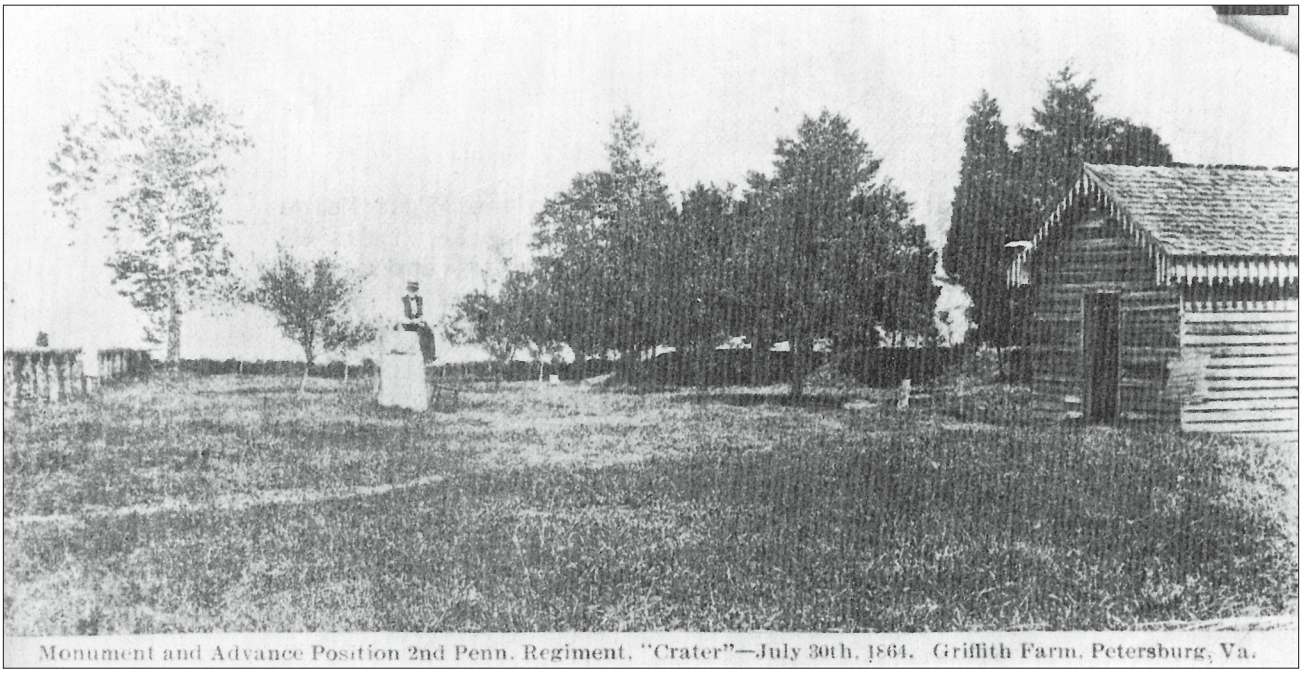


Figure 20. Griffith's "relic house" and a line of Eastern redcedars east of the Trench Cavalier. Griffith fenced off the Crater site and charged admission for visitors to tour his property. The venture made enough money for Griffith to construct a relic house and saloon for his guests. View north, circa 1910 (PETE).

The site attracted many veterans, including reunion groups and individuals that fought during the siege. Early reunions were usually small, such as a gathering in 1875 when about thirty-five members of Mahone's brigade met. Later reunions, including an 1887 assembly gathered old soldiers together from both North and South, providing one last chance at reconciliation.[86] A period illustration from that time shows Union and Confederate siege veterans with General Mahone himself, who had only recently lost reelection as a United States Senator from Virginia. Notably, the post war reunions omitted the role played by the US Colored Troops in the battle (Figure 21).

The 1880 agricultural census reported the Griffith farm, owned by Timothy R. Griffith, was valued at $1,800 with $250 in livestock. Compared to earlier census records reporting 130 acres of active farmland, the 1880 agricultural census

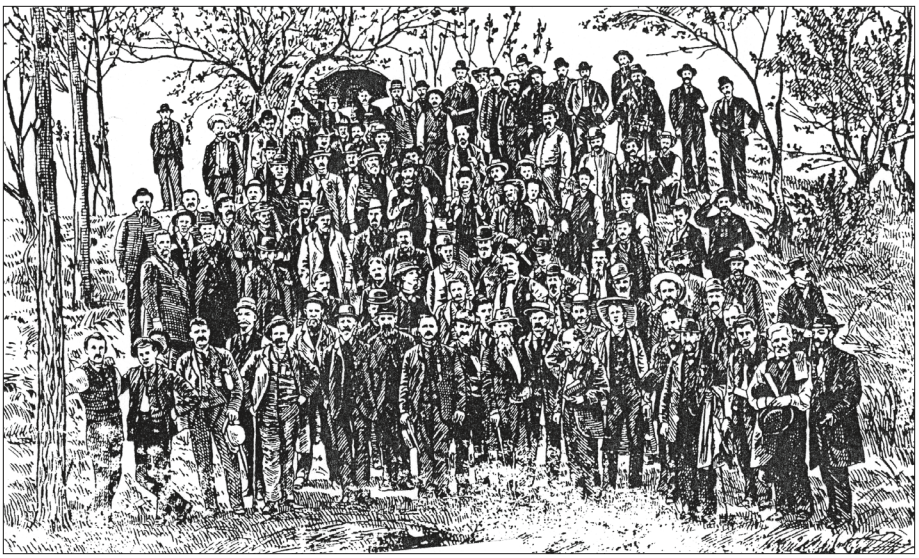


Figure 21. William Mahone poses with Confederate and Union veterans at a Battle of the Crater reunion. View from within the Crater, May 3, 1887 (Dept. of Tourism, City of Petersburg, Virginia).

reported 119 acres in production that yielded 400 bushels of Indian corn, 150 bushels of oats, 14 bushels of wheat, and 125 bushels of sweet potatoes. The same census records a more prosperous Taylor farm, owned by Richard Taylor, and valued at $6,000 with $125 in machinery and $600 in livestock. Earlier census records reported 425 acres of active farmland that by 1880 comprised 300 acres in production, 100 acres unimproved, and 75 acres in woodland. Yields included 300 bushels of Indian corn, 400 bushels of oats, 300 bushels of wheat, and 500 bushels of apples harvested from 250 bearing trees.[87]

A series of photographs taken of the Crater Battlefield site by C. R. Rees in August 1892 appeared as illustrations published in *War Talks of Confederate Veterans*. The publication is an edited collection of accounts from Civil War veterans compiled and annotated by George S. Bernard. Figures from the book include photographs and a map of the Crater Battlefield, a landscape in the process of healing the marks of the recent war (Figures 22, 23, 24, and 25).

Books like *War Talks of Confederate Veterans* were popular with siege veterans and history-minded tourists concerned with the disappearance of the physical manifestations of the war. Some places, like nearby Battery XIV, were not destroyed, but nevertheless became invisible under the cover of vines and briars. The roots of this vegetation quickly replaced the scavenged wooden revetments to protect the earthworks from erosion.[88] Concerned community members of Petersburg, politicians, and veterans groups soon began to consider ways to preserve what remained, hoping to reap some benefit in doing so for their community and the reconstructed nation.

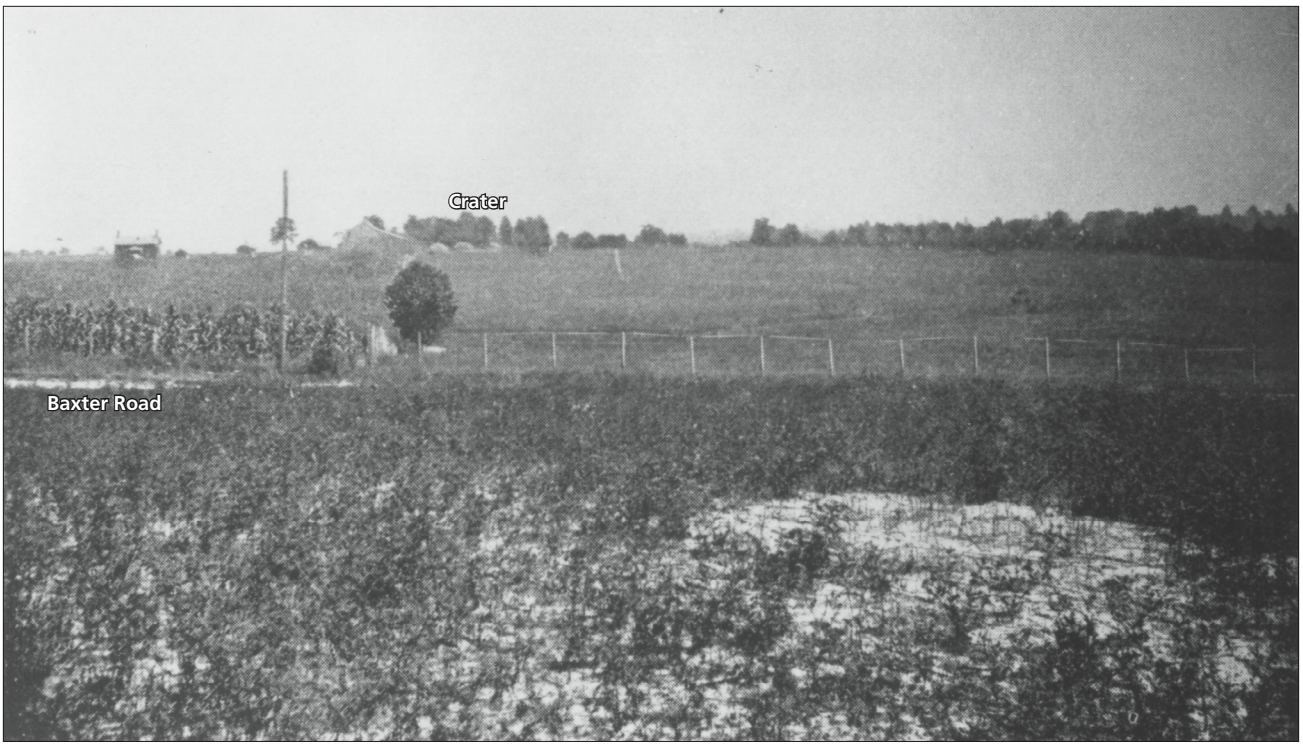


Figure 22. View from Davidson's Battery site to the Crater. View north, August 17, 1892 (George S. Bernard, "The Battle of the Crater," in *War Talks of Confederate Veterans*, ed. George S. Bernard (Petersburg, Virginia: Fenn & Owen Publishers, 1892), View No. 1).

Figure 23. View from Wright's Battery site to the Crater. View south, August 17, 1892 (George S. Bernard, "The Battle of the Crater," in *War Talks of Confederate Veterans*, ed. George S. Bernard (Petersburg, Virginia: Fenn & Owen Publishers, 1892), View No. 2).

Figure 24. View from former Confederate covered way used in Mahone's counterattack to the Crater. View south, August 17, 1892 (George S. Bernard, "The Battle of the Crater," in *War Talks of Confederate Veterans*, ed. George S. Bernard (Petersburg, Virginia: Fenn & Owen Publishers, 1892), View No. 3).

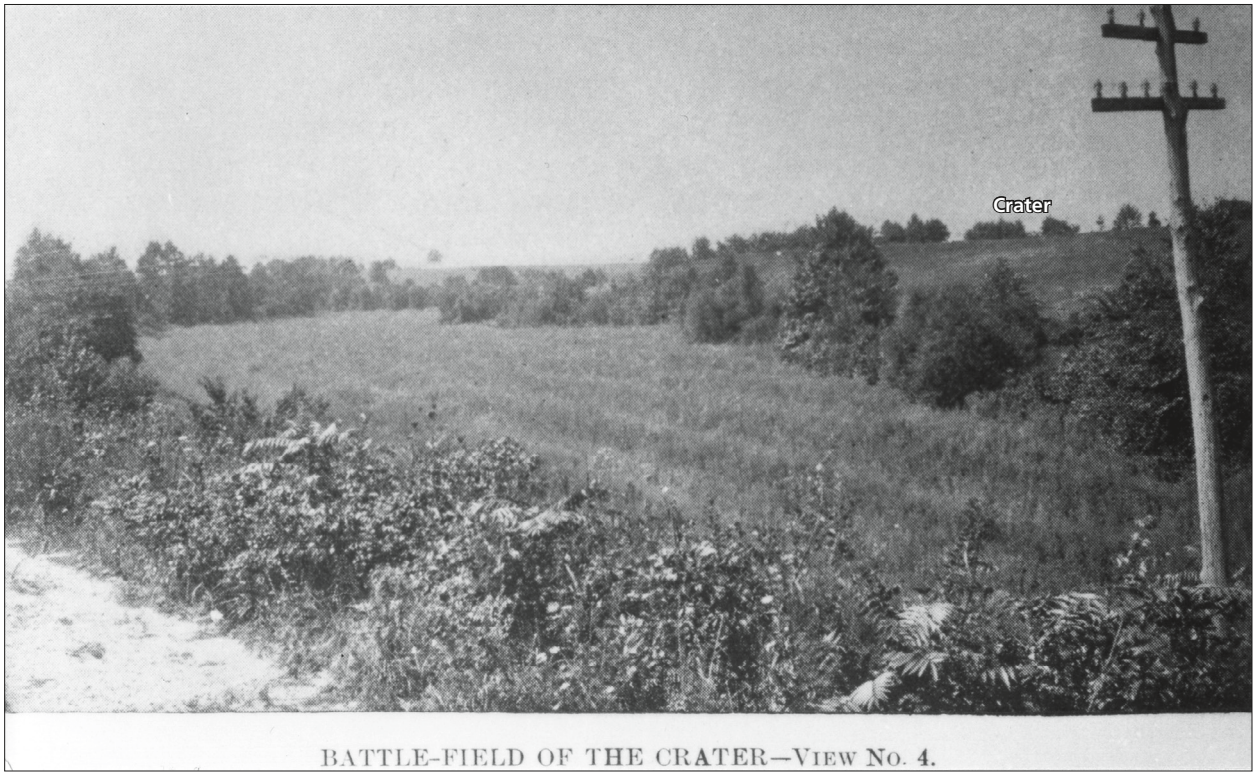


Figure 25. View from Norfolk & Western railroad to the Crater. Taken where the railroad line crosses Poor Creek, this photograph documents late nineteenth century conditions and the growth of woody vegetation in the Poor Creek Valley. View southwest, August 17, 1892 (George S. Bernard, "The Battle of the Crater," in *War Talks of Confederate Veterans*, ed. George S. Bernard (Petersburg, Virginia: Fenn & Owen Publishers, 1892), View No. 4).

ASSEMBLING PARK FROM PARCEL

In the 1880s, local public interests pushed for a park in Petersburg. Their efforts were not unique, as Union and Confederate veterans were increasingly holding joint reunions at many former battlegrounds. By the 1890s, battlefields like Gettysburg and Shiloh were well on their way to becoming historical parks under the stewardship of the War Department.[89] After post-war political reconstruction was complete, aging veterans were feeling more accommodating toward their former foes, a sentiment echoed by the general public (Figure 26). This is reflected in popular literature in 1895, when Stephen Crane published his novel *The Red Badge of Courage*, a fictionalized account of the Civil War from the perspective of a common foot soldier.

Figure 26. Dedication ceremony for the 1st Maine Heavy Artillery. Located in the Eastern Front unit but outside the Crater Battlefield project area, the dedication of the monument was indicative of commemoration and preservation efforts that would result in the creation of Petersburg National Military Park. View southeast, 1895 (PETE).

The first local movement towards a national battlefield park in Petersburg was made in 1898, with the formation of the Petersburg National Battlefield Association. General Stith Bolling, a local Confederate veteran cavalry officer, presided over the organization's efforts to create a park, organizing "sham battles," or reenactments, as a popular fundraising tool. Bolling and his group supported a bill introduced by Congressman Sydney P. Epes on January 6, 1898 to establish "Petersburg National Park." The bill languished in committee. Epes tried again in 1900, introducing a new bill to establish a national park in Petersburg. This second bill progressed through procedural changes and amendments, yet it too fell short of successful passage.[90] Yet another attempt to establish a park was made in 1906. This time, a joint resolution passed Congress, authorizing a commission to visit Petersburg in order to determine the advisability of establishing a battlefield park. Yet this effort ultimately foundered as well.

Despite repeated failures, Petersburg's citizens, leaders, and siege veterans remained active and vocal in their support of the park idea. Their energy and

commitment is evident in a 1907 *Daily Index-Appeal* editorial: "While it is true that in a larger sense the proposed park is not a local matter, the country naturally expects the people of Petersburg to take the initiative in such an undertaking, and it is clearly their interest and their duty to do so."[91] Subsequent attempts to write legislation authorizing surveys and maps of the proposed park failed, as did an initiative to build a Civil War memorial parkway from Gettysburg to Petersburg. The local park movement was further derailed upon the deaths of two of its major leaders, Congressman Francis Lassiter and Colonel Archibald Gracie.[92]

The seeds of eventual success were sown in 1910, when Virginia House of Delegates member Patrick Drewry reviewed previous plans for establishing a park at Petersburg. Although Drewry's subsequent recommendation for a memorial boulevard from the Appomattox River to Fort Stedman was modified—his initiative and continual support were essential to creating the new park. In 1923, Congressman Drewry received advice from Confederate veteran Captain Carter Bishop and Union veteran Colonel James Anderson relative to a new strategy for establishing the park (Figure 27). Bishop and Anderson wisely speculated that Congress would be more receptive to the Petersburg battlefield park if the land was surveyed in advance, and if the accompanying bill was presented jointly by Northerners and Southerners. As a result, Anderson and Bishop, along with Lieutenant Colonel Francis Pope of the Army Corps of Engineers, were commissioned to survey the battlefield lands under consideration. The

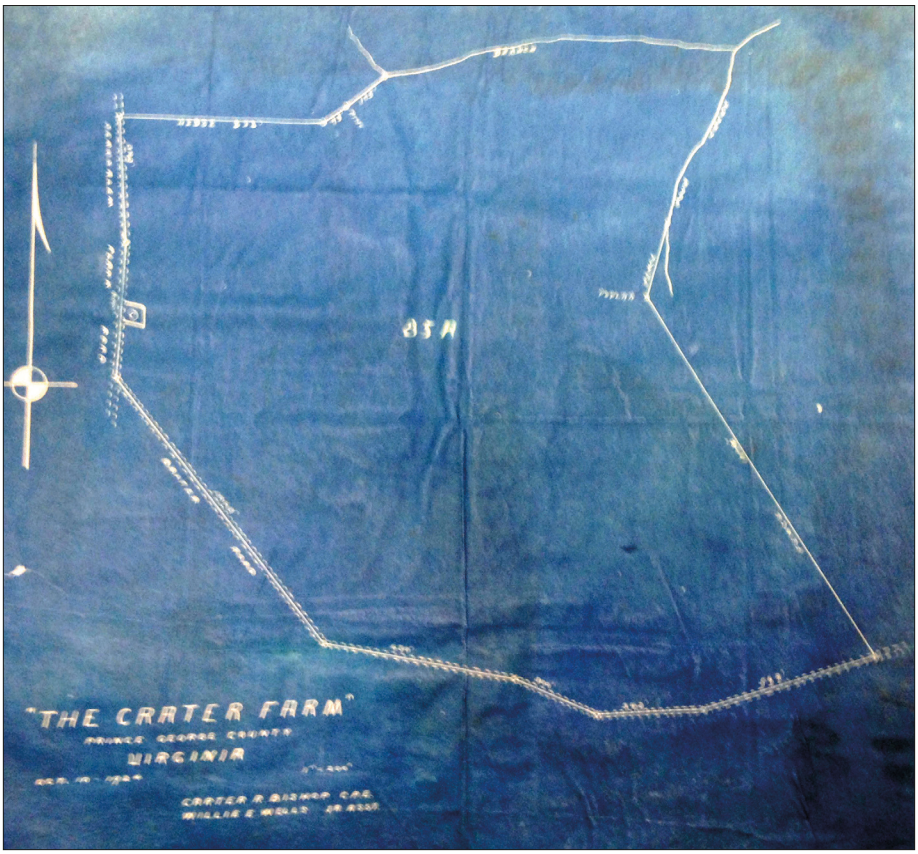


Figure 27. Survey for the Crater Farm prepared by Carter R. Bishop and Willie E. Wells. Bishop, a Confederate veteran, advocated for establishing Petersburg National Military Park. Note the square parcel along Jerusalem Plank Road sold for the installation of the Massachusetts Monument. Plan view, 1924 (Prince George County Deeds).

commission's report and recommendations were based on first-hand knowledge and measurement of the lands in question, and were submitted to Congress with Drewry's bill on January 16, 1926. This particular bill survived the Congressional Committee on Military Affairs and successfully passed the House and the Senate. On July 3, 1926, President Calvin Coolidge signed the long sought-after bill authorizing the creation of Petersburg National Military Park.[93] Captain Bishop was appointed to the park commission in 1928 and served in this role until 1941 (Figure 28).

Figure 28. Carter R. Bishop standing in a collapsed section of the Union mine tunnel. View southwest, 1940 (PETE).

Typical of military parks at the time, the War Department would administer the new park. After successful passage of park legislation, next came the task of acquiring lands and assembling a park out of dozens of privately held parcels. The size of the proposed park was initially fixed at 185 acres, to be supplemented by 200 acres owned by the US Army as part of the neighboring Camp Lee and elsewhere by way of, "The procurement by donation of all forts, trenches, and other earthworks contiguous to the roads included in the park."[94] This amount was eventually increased upon recommendation of the Secretary of War, to 480 acres, creating a more contiguous park. Starting at Battery V, north of Hopewell Road, the park boundary was intended to take in the battlefields near the Crater, and continue down Jerusalem Plank Road to the fortifications south of the city. The initial acreage did not include the Crater property as the parcel was then a privately owned commercial enterprise and unlikely to be donated. In a gesture of good will and partnership, however, the Crater's then owner, the Crater Battlefield Association (formed in 1925), granted the federal government a right of way, generously offering visitors access to visit the property.[95]

During 1927 and 1928, the Petersburg National Military Park Commission completed much of the preliminary surveys and land acquisition. They were authorized to receive gifts of land from individuals, groups or the state; land could

not be acquired through condemnation, and the government was not authorized to purchase it. The private commission was also responsible for creating or repairing necessary roads, clearing lands, and clearly marking all points of historical interest.[96] This work was aided by outside groups who took on essential responsibilities. In 1929, a group of concerned citizens formed the Petersburg Battlefield Park Association. They united to make possible the park's opening, and contributed money, supplied publicity, and as a third party, assisted in obtaining land.[97]

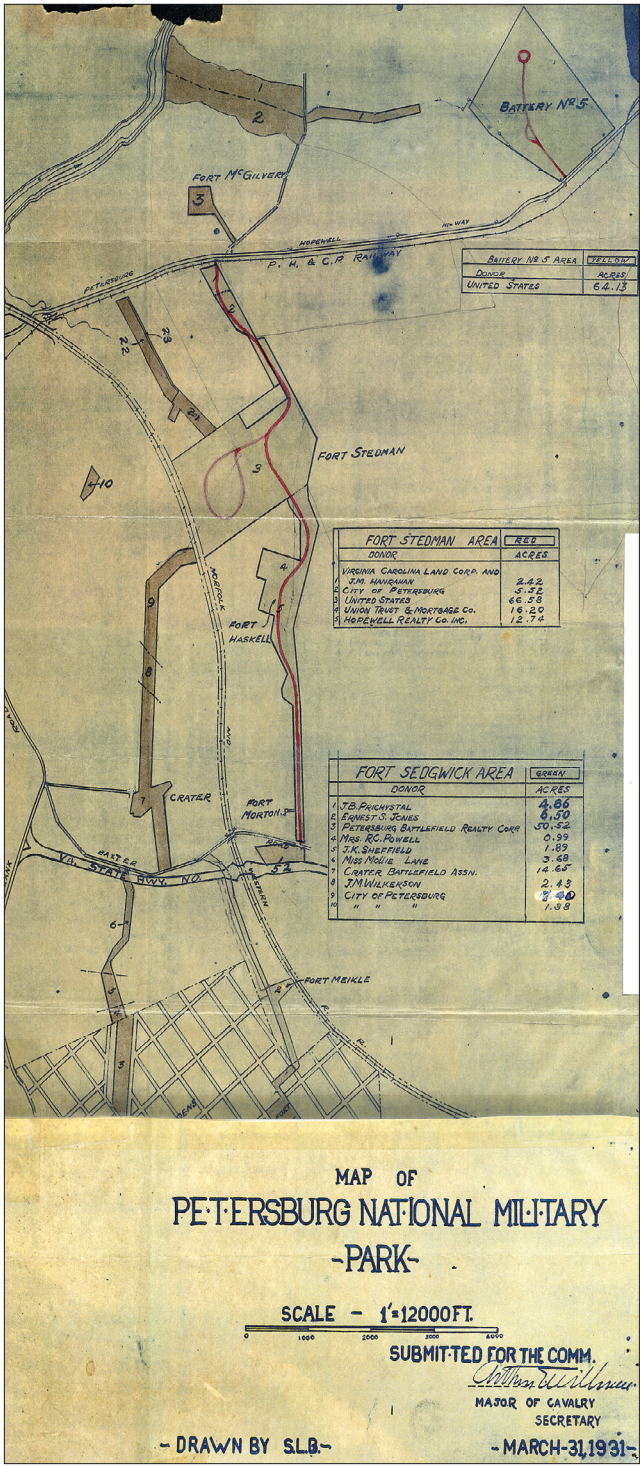


Figure 29. *Map of Petersburg National Military Park*. Five years after the park's enabling legislation, modest proposed land acquisitions that include the Crater and Confederate line are shown shaded brown. Plan view, 1931 (PETE).

The Commission executed field surveys, tracings, and descriptions of the desired tracts, then turned these materials over to the Association—which would work to acquire the land and facilitate its eventual transfer to the federal government. Land in the Battery V area was transferred early, and in 1929 was cleared of undergrowth by a temporary work force. By 1930, the scope of the Commission's preliminary establishment work was finished. A 1931 map documents parcels either acquired or desired by the government for the park (Figure 29). The Crater parcel they wished to acquire was a narrow 14.65-acre strip near the fortifications, including the "bulge" of the Crater itself. Actual procurement of the land was a complicated process, but by 1932, nearly five hundred acres were in some stage of the acquisition process.[98]

In addition to acquiring private land, the early years of the park witnessed development pressures to the battle-era agricultural landscape in the form of a new highway project. In 1931, the Virginia Department of Highways prepared designs to construct US Route 460. In the area south of the Crater Battlefield Association's property, Route 460 would begin as a new roadway extending perpendicular from South Crater Road (Jerusalem Plank Road). The department designed this new route south of the existing Baxter Road which had served as an avenue of approach for both Union and Confederate forces during the battle. Route 460 would continue on a new alignment across the Norfolk & Western railroad line and rejoin the alignment of Baxter Road about a quarter-mile east of the railroad (Figure 30). Historic imagery from the mid- and late 1930s confirms the completed construction of the new route.

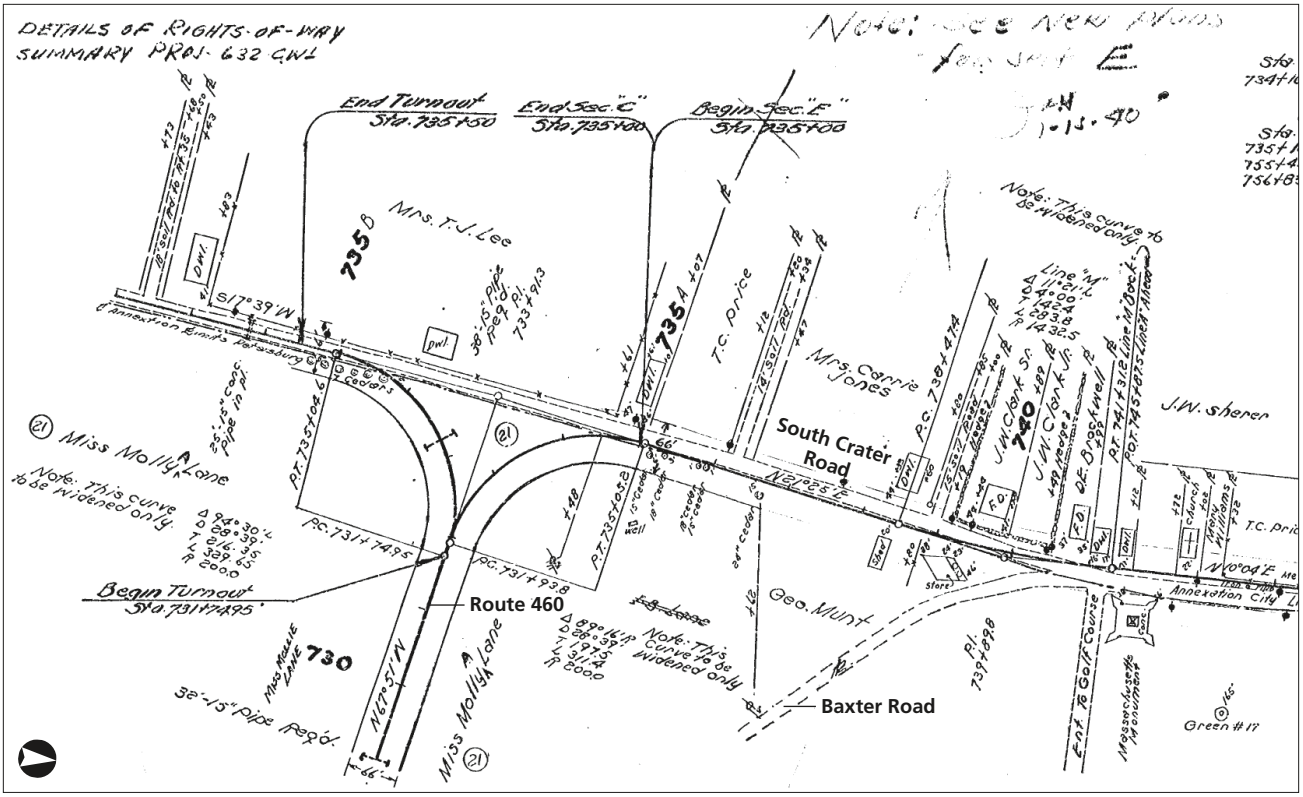


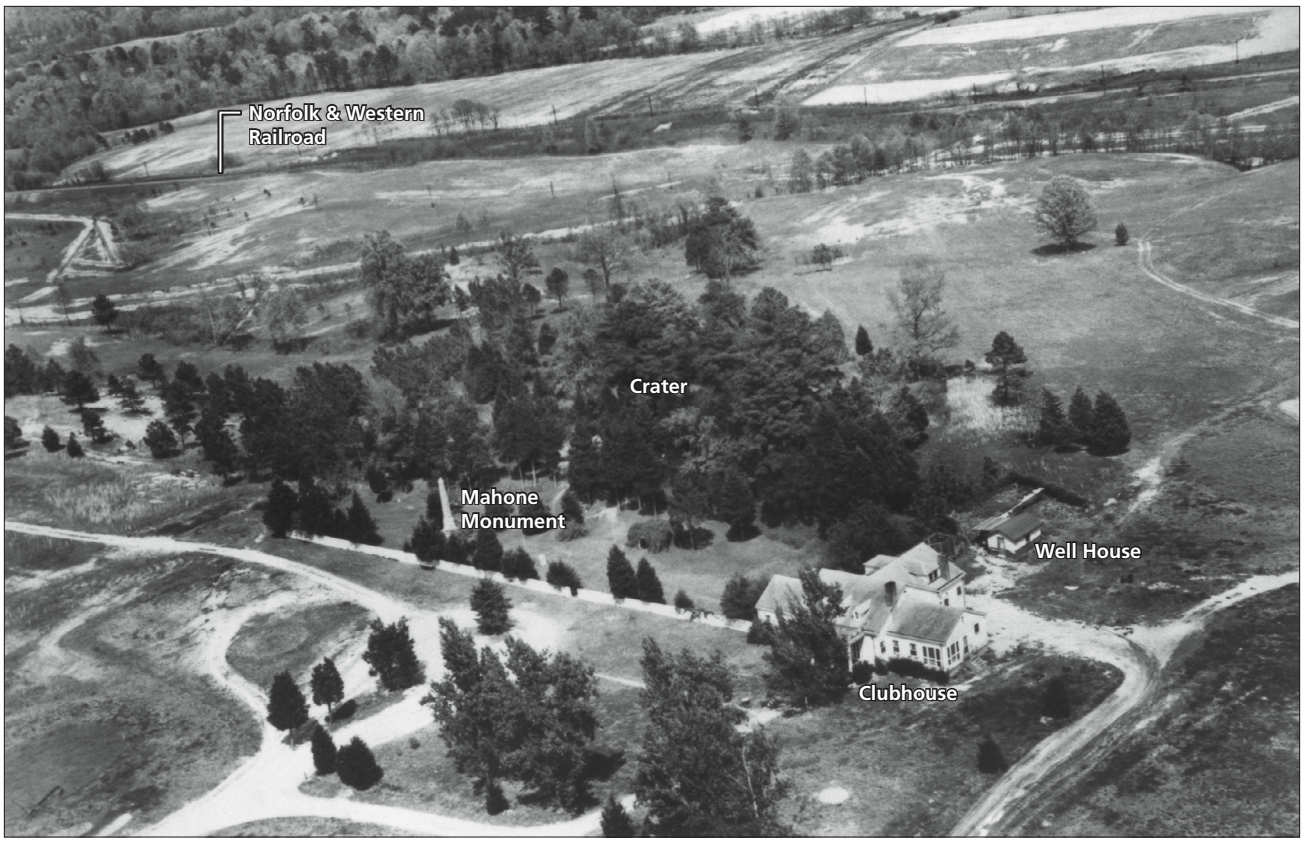
Figure 30. Detail of *Plan and Profile of Proposed State Highway*. Design and construction of US Route 460 began in 1931. The new alignment abandoned the battle-era Baxter Road to the north. Note the Massachusetts Monument and its plaza west of South Crater Road and a mark and annotation for the Crater Battlefield Association's golf course Green #17. Plan view, 1931 (Sheet 11 of 12, VDOT).

The park initiated its own construction projects for roadways and in 1932, broke ground for the first segments of the park Tour Road. Barely a month later, on June 20, 1932, the official dedication of the Petersburg National Military Park took place at Battery V. The park's opening event attracted a crowd of several thousand, and the city declared a general holiday. The morning's program included an address by Secretary of War, Frederick Huff Payne. In his remarks, he recognized that Petersburg citizens, in a remarkable act of dedication, had labored nearly a half-century to realize the accomplishment celebrated on that day.[99]

BATTLEFIELD PRESERVATION

Timothy Griffith continued farming and operating his battlefield attraction at the Crater until his death in 1903. In 1913 his heirs offered the farm for sale. Virginians, as well as veterans from Massachusetts and Pennsylvania took this opportunity to lobby for the Federal purchase of this land as a battlefield park. Their efforts to no avail, the public will to preserve the Crater site seemed to have its own momentum, and in 1925 a private organization purchased the farm. The new owners, the Crater Battlefield Association, continued the private local stewardship of this symbolic focal point of the siege.

In an attempt to pay for acquisition costs and ongoing preservation of the Crater and the surrounding land, the Crater Battlefield Association built a clubhouse at the site, and in 1926 completed an 18-hole golf course (Figures 31 and 32). In 1926, the association undertook the re-excavation of the collapsed mine tunnel.



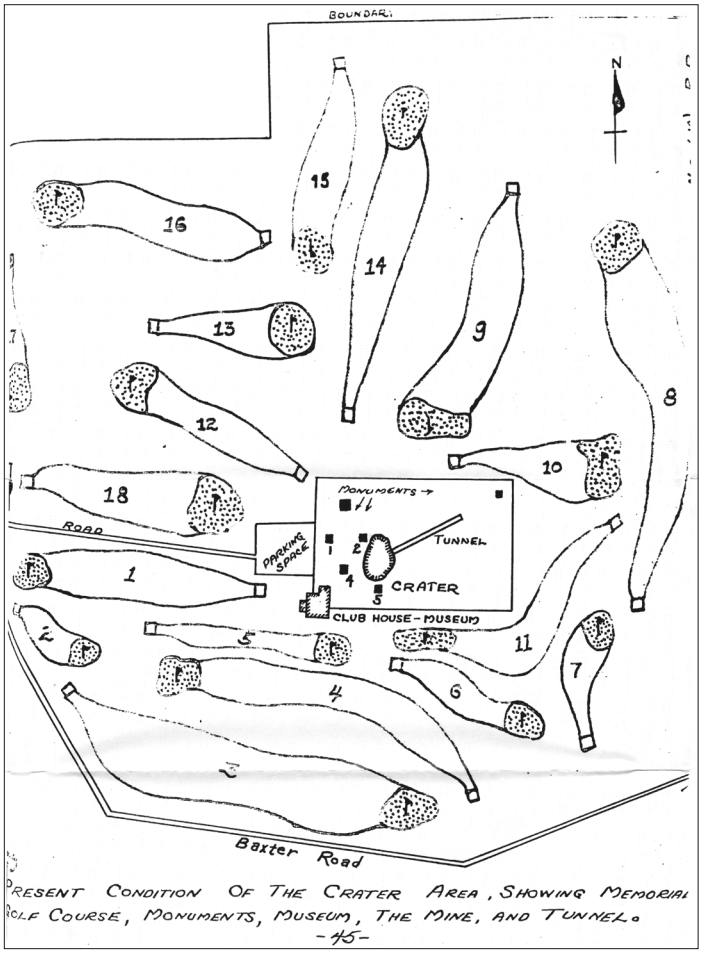


Figure 31 (top). Crater Battlefield Association golf course clubhouse situated next to the Crater site. Note the open quality of the landscape and the concentration of Eastern redcedars and pines at the Crater site. Oblique view northeast, post 1927 (PETE).

Figure 32 (left). Diagram for the Crater Memorial Golf Course. The Crater Battlefield Association attempted to finance the preservation the site with the construction of an 18-hole golf course on the former Griffith property. Plan view, circa 1929 (PETE).

A vintage postcard documents access to the excavated tunnel from the eastern end of the Crater, owing to the fact that the association did not own the location of its western entrance on the Taylor property behind Union lines (Figure 33). The tunnel remained open to the public for a short time before the roof began to fail. The Griffiths' former "relic house," the site's original museum, was retained until at least 1929 accommodating the display of battlefield relics some of which were discovered during the course of the mine's recent re-excavation.[100] In 1931, extensive construction work was being accomplished on the association's golf course when the remains of another twenty-nine soldiers were recovered from the grounds. Presumed to be the remains of Union soldiers, following a small ceremony the remains were transported and reburied at Poplar Grove Cemetery.[101] The Crater Battlefield Association described itself as "a trustee whose rights are subordinate to the plans of the government or people in preserving all the battlefields around Petersburg and Richmond."[102] The group enjoyed the Petersburg community's support throughout its tenure, yet went bankrupt in 1934 during the years of the Great Depression.

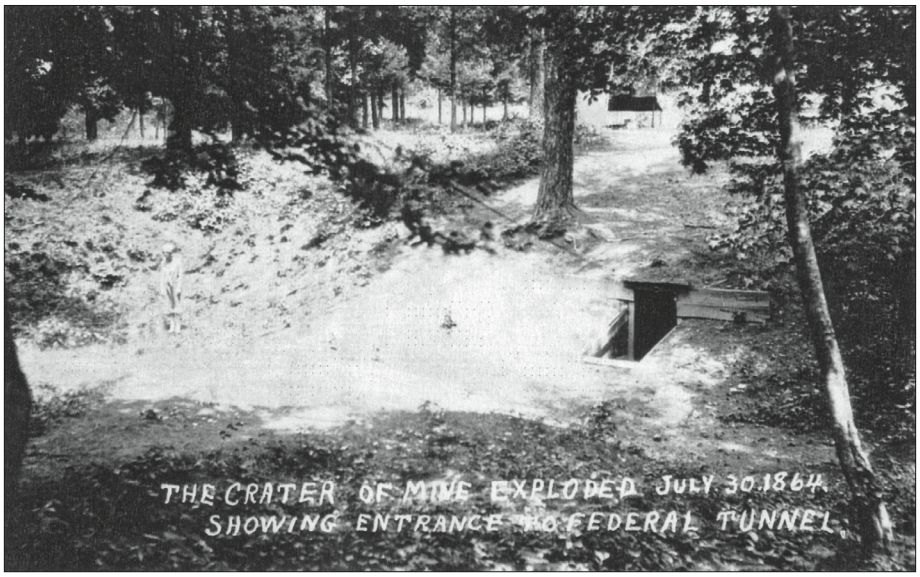


Figure 33. Mine tunnel outlet rebuilt into the side slope of the Crater. The Crater Battlefield Association excavated and rebuilt a portion of the mine tunnel, beginning with a portal in the side slope of the Crater, in 1926. View northeast, circa 1920s (PETE).

Preserved earthworks, the Union tunnel, the Crater, all the other remnants of battle, such as bullets, mortars, equipment, and the many tales accumulated since the battles, each contribute significance. Not to be forgotten are the numerous memorial monuments, markers, and statuary that have been erected and dedicated on the property since the war's end. Over time, these have stood in recognition of the brave, honorable, or simply hard-working men and women who played a role at Petersburg either during the Civil War or to the establishment of the park itself. To commemorate participants and events of the Civil War, eleven monuments and memorials have been erected within and around Petersburg National Battlefield.[103]

Within the Crater Battlefield project area, veterans' groups and associations, such as the United Daughters of the Confederacy, installed seven monuments between 1905 and 1927. The majority of these commemorative installations were located around the Crater. The first, installed in 1905, was placed by the veterans of the Second Pennsylvania Heavy Artillery Regiment. The group attended an October reunion of Confederate veterans at the battlefield and at that time, installed the Pennsylvania Volunteers Heavy Artillery Monument on privately owned land west of the Crater and Trench Cavalier. The monument, comprised of a group of three markers, marked the regiment's advanced, right flank, and left flank positions. The same year, the 48th Pennsylvania Regiment Veterans Association, a group of survivors from the regiment responsible for excavating the mine tunnel, appointed a committee to commemorate their efforts during the Petersburg Campaign. In 1907, the association dedicated a major memorial, the Gowen Monument, on land south of the Crater Battlefield near the spot where Colonel George W. Gowen was killed during an April 1865 assault. In concert with that effort, the association unveiled two small markers at the Crater Battlefield. The first, the Entrance to Mine Monument, was installed southeast of the mine portal and the second, the Crater of Mine Monument, was installed along the east rim of the Crater near the terminus of the mine tunnel.[104]

The first Confederate monument at the Crater Battlefield, and the first at what would become Petersburg National Military Park, was installed in November 1910 and dedicated on April 28, 1911. The Petersburg Chapter of the United Daughters of the Confederacy funded the Mahone's Brigade Monument to mark the position of Brigadier General William Mahone's brigade during the battle and had the marker installed west of the Crater and Trench Cavalier.[105]

Figure 34. Massachusetts Monument. Between 1905 and 1927, veterans' groups and associations installed seven monuments at the Crater Battlefield. The Massachusetts Monument was installed on a parcel of land abutting Jerusalem Plank Road. View northeast, 1911 (*Worcester Magazine*).

On April 18, 1910, the Massachusetts State Legislature appropriated $5,000 for the construction of a monument to the Commonwealth's soldiers who served at Petersburg. Members of the A. P. Hill Camp, Sons of Confederate Veterans, donated a parcel of land abutting Jerusalem Plank Road on the Griffith farm property for the monument. A trade publication from 1911 reported that John Lawler & Sons, based in Springfield, Massachusetts, executed a contract from the Commonwealth for the monument. Jones Brothers Company, from Barre, Vermont, cut locally-sourced granite and Burns & Campbell of Petersburg installed the monument. The Commonwealth officially dedicated the Massachusetts Monument on November 13, 1911[106] (Figure 34).

Two final monuments were added to the vicinity of the Crater in the 1920s. First, the South Carolina Chapter of the United Daughters of the Confederacy dedicated the South Carolina Monument on November 26, 1924. Located on the north rim of the Crater, the monument commemorates South Carolina soldiers who manned positions and artillery at Elliott's Salient on the morning of the mine explosion. Second, the Petersburg Chapter of the United Daughters of the Confederacy funded and dedicated the Mahone Monument on July 30, 1927. As early as 1906, plans were initiated by the City of Petersburg to install a monument honoring William Mahone. The local chapter of the United Daughters of the Confederacy began their efforts in 1915 and trade magazines reference an early concept featuring a life-sized Mahone figure atop a wall. The final monument, a granite obelisk set on a stepped granite base, was crafted by Burns & Campbell of Petersburg and installed west of the Crater and Trench Cavalier.[107]

TRANSFER TO THE NATIONAL PARK SERVICE

On August 10, 1933, responsibility for the park was transferred to the National Park Service, US Department of the Interior, as were all United States monuments, military parks, and the National Capitol Parks. The administrative transfer occurred a little over a year after the official dedication of Petersburg National Military Park and occurred so early in the park's development, it is difficult to discern how the administrative change between War Department and National Park Service affected its evolution (Figure 35). Branch Spalding, a National Park Service historical technician, arrived in December 1933 to begin the park's regular superintendence.[108]

During the 1930s, the park was primarily open to serve individuals and groups seeking guided tours. The park was yet to be equipped with an entry station or central facilities to assist self-guided visitors. Guide stations offered visitors free

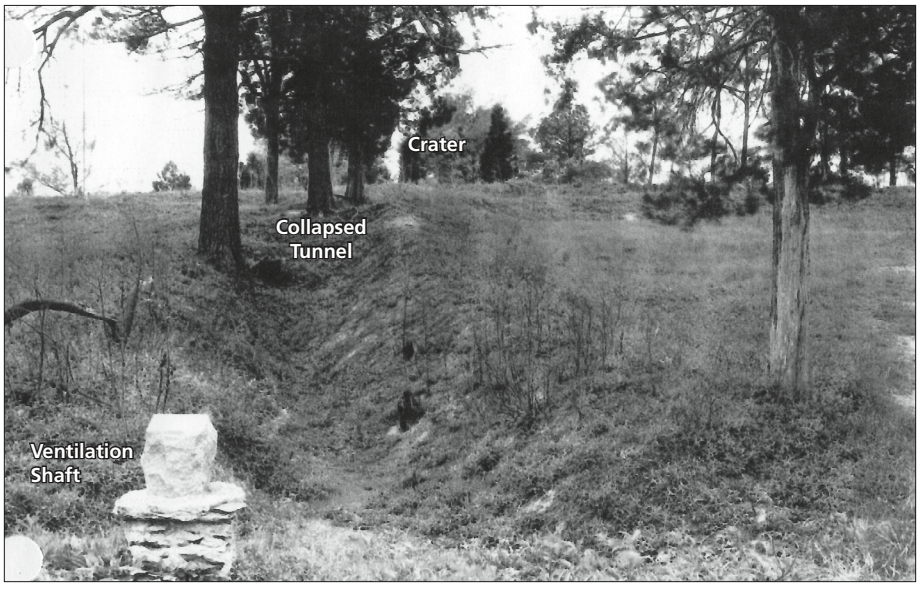


Figure 35. Collapsed mine tunnel and remnant of ventilation shaft. The areas left and right of the mine tunnel, maintained for the Crater Battlefield Association golf course, lack the Eastern redcedars and pines seen growing on the tunnel and at the Crater site. View southwest, 1934 (PETE).

services, and were often staffed by WPA or CCC guides (Figure 36). The park was administered with a permanent staff of eleven, including junior and senior park historians. Seasonal ranger-historians offered the public historical and educational services on an as-needed basis.

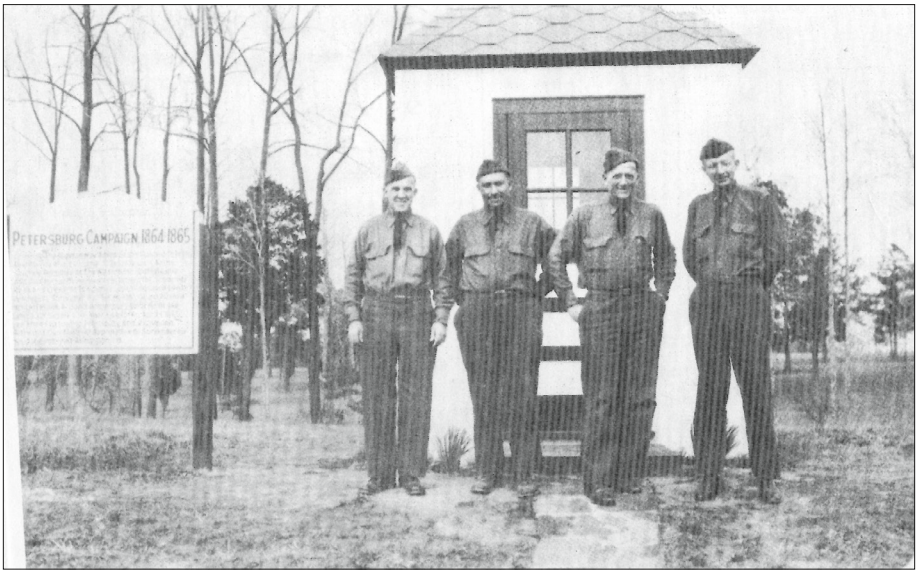


Figure 36. CCC Park Guides at the Battery V Contact Station. The CCC established a camp at the park in July 1933 and work crews installed contact stations at Battery V and the Crater. 1936 (PETE).

The Civilian Conservation Corps Company #1364 had set up their permanent camp at the park in July 1933, prior to the transfer of the park from War Department administration, beginning a crucial period of park development. CCC work crews were involved with development of much of the park's physical infrastructure between 1933 and 1942. The CCC enrollees cleared underbrush, assisted with road construction, planted trees, led tours, and constructed minor buildings.[109] In addition, CCC crews completed field work for a topographic survey of the former Griffith and Taylor farm properties. The survey, published in 1935, is an important record that documents the battle-era earthworks and defensive features, buildings constructed for the golf course and the Taylor/Travis farming operation, circulation features, and small-scale features such as fence lines (Figure 37).

Beyond the confines of the City of Petersburg, state officials noted the failure of the park to acquire the Crater property. On August 31, 1934, the Commissioner of Public Welfare for the Commonwealth of Virginia, Arthur W. James, wrote a provocative letter on behalf of the park. He was soliciting financial assistance and participation from Dr. James Weldon Johnson, Director of the National Association for the Advancement of Colored People (NAACP), based in New York City:

> The Crater Battlefield property, scene of the great mine explosion and holocaust of troops, Federal and Confederate, including Negro organizations which suffered severely as the spear head of the Federal advance, was acquired a number of years ago by patriotic organizations, the Crater Battlefield Association, Incorporated. This Association re-claimed, developed and

Figure 37. Topographic Survey, Petersburg National Military Park. After the Crater Battlefield Association closed the golf course and before the NPS acquired the former Griffith farm property, CCC work crews prepared a detailed topographic survey of the property and the former Taylor farm east of the Norfolk & Western railroad line. Battle-era earthworks, golf course features, buildings on both properties, Baxter Road, US Route 460, and other features are documented on the survey. Note the abutments, but lack of an overpass where Baxter Road meets the Norfolk & Western railroad line. The project area's approximate boundary is shown in red. Plan view, 1935 (PETE).

> made possible of preservation this most tragic and historic spot. . . .Annually, hundreds of Negroes, including college and school groups, visit the Battlefield because of its peculiar interest as the first place perhaps, in which organized and regularly enlisted Federal companies of Negroes participated, and concerning whose part therein there is so much interesting controversy.[110]

Commissioner James went on to make the following suggestion:

> It has frequently occurred to me that the Association for the Advancement of Colored People, and the Negroes generally, should, and in all probability would be interested in the efforts of the citizens of Petersburg and Virginia and the Association retiring this indebtedness, and in transferring the property for inclusion in the National Military Park where it probably belong[s]. . . .It has been suggested to me by Negro leaders that the property might be acquired by some Negro organization to be maintained as a National Negro Military Memorial Park. Personally, I think it belongs in the Petersburg National Military Park, being the chief interest in the Petersburg war area, and I feel that Negroes would make the greatest contribution and secure the most permanent benefits of its acquisition, transfer and incorporation were promoted by them for that purpose.[111]

To which Dr. Johnson, perhaps taking into account the great price already paid, politely declined.

Acquisition of park lands and development of visitor facilities would continue without the Crater property as its centerpiece. Regarding the ongoing project of park development, Historian Spalding wrote an article about the park in the October 1934 issue of the magazine *The Commonwealth*. Spalding described the objective of the physical development of Petersburg National Military Park as, "to render important historical events comprehensible to the people through the use of the first-hand source materials which are available in this one place—the actual terrain on which the events occurred."[112] The main focus of study at this outdoor laboratory would be the Civil War and general nineteenth century military practice. The visitor could study this as comprehensively or as superficially as they wished. Spalding also indicated the importance of presenting Petersburg as a "chapter in Grant's campaigns in Virginia," and the park as "one unit in a chain of national historical parks" (Figure 38).

To fulfill those goals, Spalding wrote that the National Park Service intended to construct roads parallel to the battlements, leading visitors on a chronological tour of events. The road system would also allow visitors to visually connect important places, such as the Union and Confederate lines previously obscured by dense vegetation. He made the point however, that the National Park Service did not want—and indeed could not maintain—a "polished city park" with obviously cleared vistas, but one with more subtle changes and natural effects.[113]

The nation's economic hardship of the 1930s greatly affected Petersburg. In 1934, the Crater Battlefield Association fell into bankruptcy and closed the Crater golf course. In January 1936, the private group that had negotiated the purchase of

Figure 38. Soldiers from Camp Lee touring the Crater. Camp Lee personnel regularly visited to view the well-preserved earthworks and discuss military tactics. View east, 1941 (PETE).

so many other parcels for the park's acquisition obtained the 128-acre Crater property, the former Griffith Farm, at public auction for $20,000. Negotiations for the final transfer were slow moving, but on July 18, 1936, the federal government purchased the former Griffith farm for $24,720.51.[114]

Recognizing the Crater as the symbolic centerpiece of the park, the National Park Service wasted little time in making changes to accommodate visitors. The superintendent established residence in the former clubhouse, where a museum and guide services were also made available. Plans were drawn to connect the Crater parcel section to the rest of the park tour road so it could be integrated into a seamless visitor sequence. At this time, the mine tunnel was once again beginning to collapse, dramatically in places, and plans were made to restore it[115] (Figure 39).

Figure 39. Collapsed mine tunnel outlet in the side slope of the Crater. View south, 1934 (PETE).

In an aerial photograph of the Crater property taken April 1, 1937, diverse land uses can be interpreted throughout the site (Figure 40). In the southeast corner of the park (lower right), one can see the large Taylor/Travis farm was still present as a working farm. Agricultural fields had been recovered well before this time and sprawled over the former Battery XV, Fort Morton, Battery XIV, and Battery XIII. Siege Road, which is seen running north-south, cuts through the easterly side of the farm and connects with US Route 460 at the vicinity of the former Battery XVI. Apart from the tilled soil of the Taylor farm, much of the rest of the land appears to be grassy meadows interspersed with clumps of evergreen trees. The notable exceptions include the evenly regimented parallel lines of Blandford Cemetery on the western edge (center left), and the uneven grassy knolls and dips of the Crater Golf Course (lower left). The Norfolk & Western railroad tracks are seen cutting a wide north-south swath through the battlefield, just as it did in 1865. A single railroad overpass, built for US Route 460, required park visitors to exit the park boundary after visiting the Union sites. In order to travel over the railroad, visitors drove west on Route 460, heading towards US Route 301 (lower left corner), then proceeded north on Route 301 to then turn right into the Crater parcel. This circuitous route promoted confusion and discontinuity in the visitor experience of the battlefield.

The Massachusetts Memorial is shown immediately to the left of the entrance to Crater Road in the 1937 aerial photograph, this being dedicated to the Union soldiers from that state that fought and died at Petersburg. One sees the road travels almost due east towards the Crater void and the former golf course club house. A parking lot was at the end, and the clubhouse on the right. At the far eastern edge of the golf course one sees the wide green path of Poor Creek, edged with small clumps of hardwoods and marsh along the streambed. The trees clustered on the golf course appear to be evergreens. It also appears that there was a fairly clear open vista from the golf course, across the railroad swale to the Taylor farm.

Although citizens, civic organizations, and even the city council supported the concept of reopening of the golf course at some point in the future, park management did not share in this goal. In July 1937, Acting Director Arthur E. Demaray announced in a letter to the Petersburg Chamber of Commerce, that retaining the golf course was not to be considered as this would "detract considerably from its historical value," and in effect, jeopardize the national interest in the site for the sake of a local interest.[116] The summer and fall of 1937 were spent removing the golf course and its supporting infrastructure in an effort to begin "restoring the wartime scene."[117]

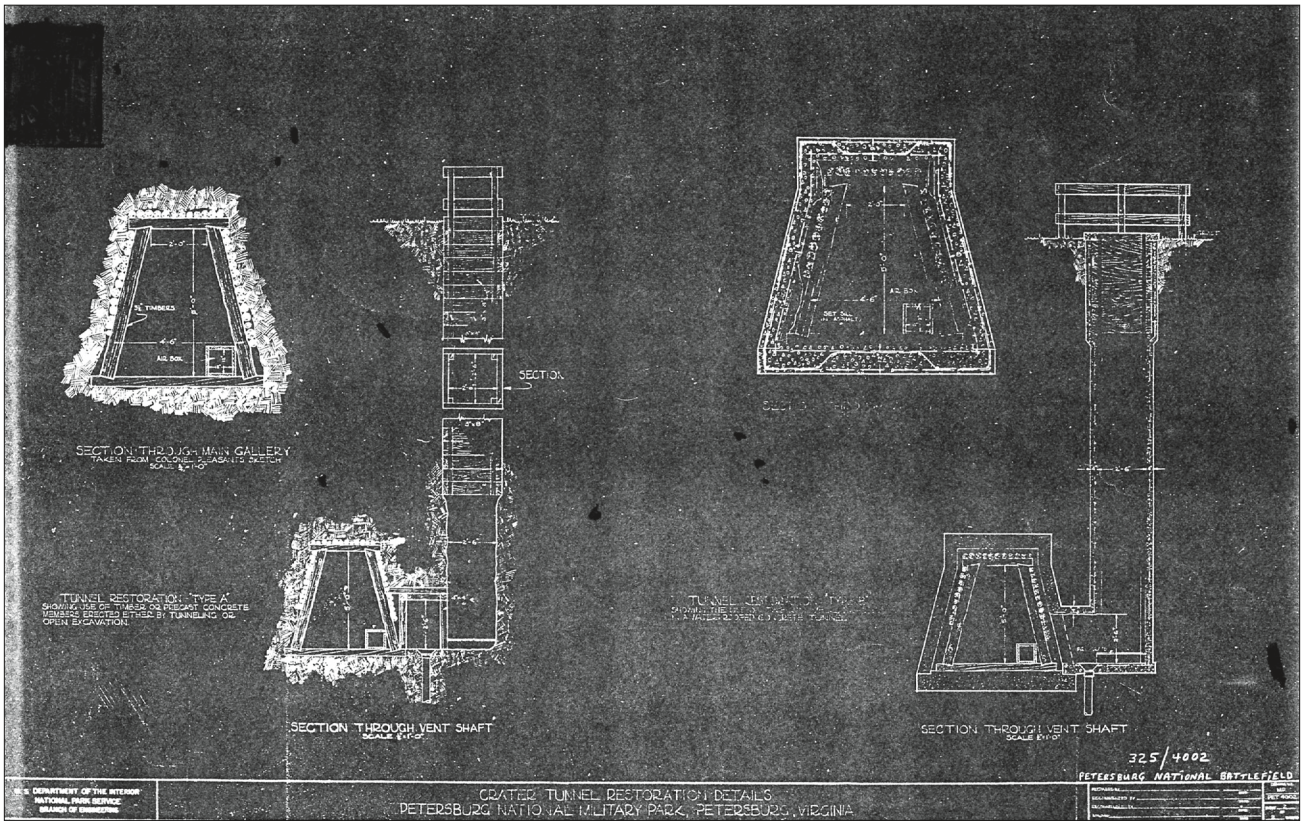
In April 1937, an exploratory excavation of the Crater tunnel was begun by a CCC team, under the supervision of Fredericksburg National Battlefield's Assistant Historian Oscar Northington, Jr. (Figure 41). Such an excavation would have

Figure 40. Aerial photograph of Petersburg's Blandford neighborhood and the Crater Battlefield. The project area's approximate boundary is shown in red. Note the former Crater Battlefield Association's clubhouse and golf course to the west of the Norfolk & Western railroad and active agriculture on the former Taylor property east of the railroad. Plan view, 1937 (NARA).

Figure 41. Members of the Civilian Conservation Corps, directed by the park, conducted an exploratory excavation of the mine tunnel. View southwest, 1937 (PETE).

come as second nature to Petersburg's CCC enrollees who were made up of veterans from World War I. During the digging many artifacts were recovered and that November, crews discovered the remains of two additional Union soldiers. In 1938, the Union's entrance to the tunnel was rebuilt. This time, aided by the advice of Dr. Henry Pleasants (nephew of Lieutenant Colonel Pleasants, the tunnel's creator), the proportions and construction were based on that of the original (Figure 42). The rebuilt tunnel again became a popular part of the Crater Battlefield tour.[118]

Figure 42. *Crater Tunnel Restoration Details*. A second effort to rebuild the Union mine tunnel employed the advice of Dr. Henry Pleasants, the nephew of the mine's creator, Colonel Pleasants. Section views, 1938 (PETE).



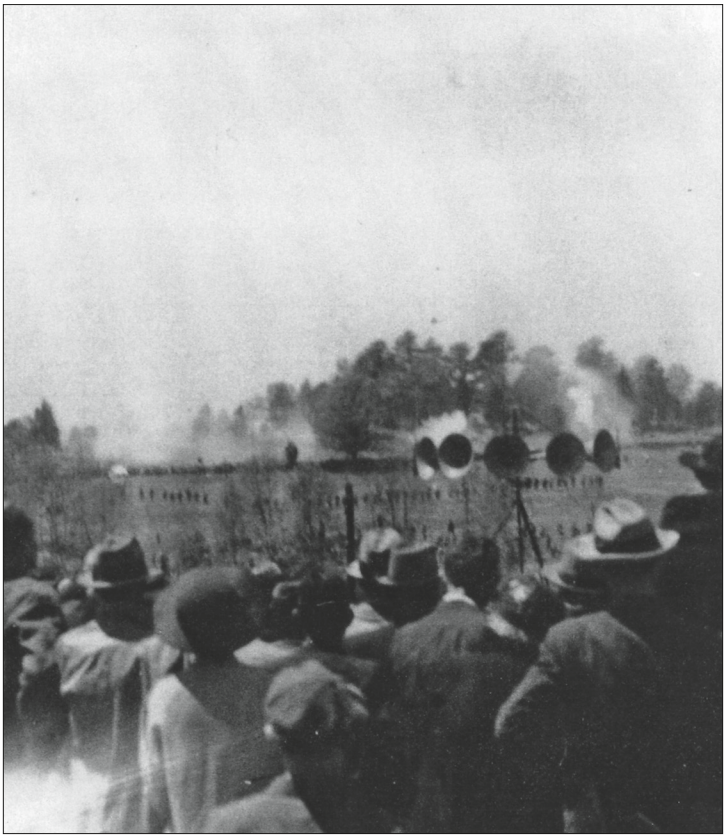
DEDICATION AND CELEBRATION

A reenactment of the Battle of the Crater took place on April 30, 1937, celebrating the integration of the Crater property within the legal park boundary. National Park Service staff planned this occasion in cooperation with local organizations, such as the Chamber of Commerce, Gray's Armory, the Petersburg Battlefield Park Association, the Petersburg Chapter of the United Daughters of the Confederacy, the Ladies Memorial Association, Rotary, Lions and Kiwanis Clubs, Masonic Orders, and others. The large turnout was estimated at 50,000 people.[119] A period photograph documents that the sizeable crowd stood watching from the hill south of the Fort Morton site (Figure 43). At the re-enactment Congressman Drewry, a major force in the park's creation, made the opening address, and the following events, narration, and even the "explosion" worked perfectly, on time, and without accident (1937 Period Plan).

A total of 3,000 reenactors took part in the event including Virginia Military Institute Cadets, US Marines, and National Guardsmen (Figure 44). Four elderly Confederate veterans of the 1864 battle attended the 1937 reenactment as spectators, but none of the invited Union veterans felt themselves up to the trip. The president of the Petersburg Battlefield Park Association, Franklin W. Smith, said of the event, "it was one of the greatest things ever held in Petersburg."[120]

Figure 43 (bottom left). Spectators attended the popular Battle of the Crater reenactment. Held on April 30, the event celebrated the acquisition of the Crater property (former Griffith farm) into the National Park Service's land holdings. The people in the foreground are assembled south of the Fort Morton site. View northwest, 1937 (PETE).

Figure 44 (bottom right). Virginia Military Institute Cadets, US Marines, and National Guardsmen took part in the 1937 reenactment. (PETE).



Cultural Landscape Report

Crater Battlefield Petersburg National Battlefield

Petersburg, Virginia

1937 Period Plan

National Park Service

Olmsted Center for Landscape Preservation

www.nps.gov/oclp

SOURCES

1. Topographic Survey, Petersburg National Military Park, 1935
2. Aerial photograph of Petersburg, NARA, RG 114: CAN 275, FG-8-681937, 1937
3. Park GIS Files
4. City of Petersburg GIS Files
5. Ortho Imagery, Virginia Geographic Information Network, 2013

DRAWN BY

Tim Layton
AutoCAD and Illustrator CS6, 2017

LEGEND

- Contemporary Park Boundary
- Project Area Boundary
- Building / Structure
- Forested Canopy
- Golf Course Green / Tee Box
- Earthen Defenses
- Creek / Stream
- Paved Area
- Railroad
- Sidewalk / Trail / Footpath
- Monument / Marker
- Fences

NOTES

1. Projection: Virginia State Plane, South Zone, NAD 83 HARN, Feet
2. All features shown in approximate scale and location

0' 100' 200' 400'

Drawing 2

THE 1941 PARK MASTER PLAN

In 1941, as war raged in Europe, the National Park Service developed a *Master Plan for Petersburg National Military Park*, to ensure a more cohesive overall approach towards the park's development and management (Figure 45). Part of the *Master Plan*, developed by the National Park Service Branch of Plans and Design, included a plan of *The Crater-Colquitt's Salient & Fort Morton Area* (Figure 46). Issued on September 1, 1941, this drawing illustrates numerous proposed improvements and modifications to the layout of the area. Major design elements in the 1941 *Master Plan* included two proposed automobile overpasses, a restored pond behind Gracie's Dam and Colquitt's Salient, the removal of numerous trees to create view corridors and vistas, new or altered roads, and an increase number of overlooks. In addition, the plan documents several private properties identified for future acquisition. Most notably, while the property surrounding the Crater itself was now within park holdings, the Taylor farm located east of Poor Creek would continue to be held under private ownership until 1942.

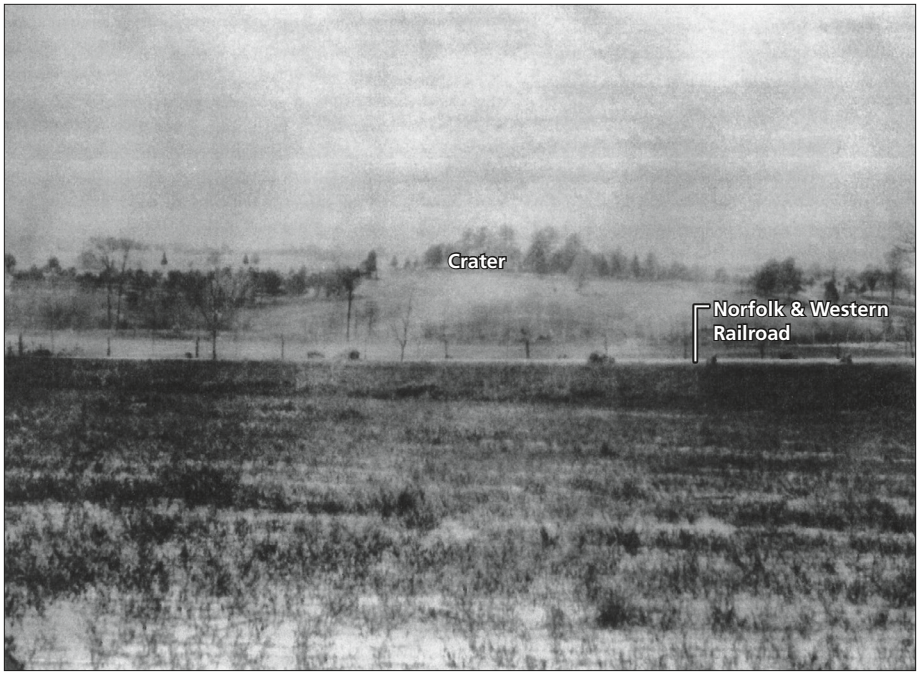


Figure 45. View from the Fort Morton site to the Crater. Prior to the 1940s, the park did not own the former Taylor farm, foreground, and lacked an overpass to cross the Norfolk & Western railroad line. Visitors had to exit the park onto US Route 460 and re-enter from US Route 301 to access the Crater. Note the limited amount of successional woody vegetation and expansive view from the Fort Morton site. View west, 1938 (PETE).

The last Taylor to reside at "Spring Garden" was Richard Field Taylor V (1848–1921), a nephew of William Byrd Taylor. After having been in the possession of the Taylor family for almost 150 years, the farm was sold to Robert W. Travis in April 1901. The War Department acquired the 206 acre property in May 1942, for the purpose of incorporating the farm into the expanding war-time facilities of neighboring Camp Lee. Following the end of World War II, on October 29, 1949, the former Taylor/Travis property, comprising the eastern half of the Crater Battlefield, was finally transferred to the Department of the Interior.[121]

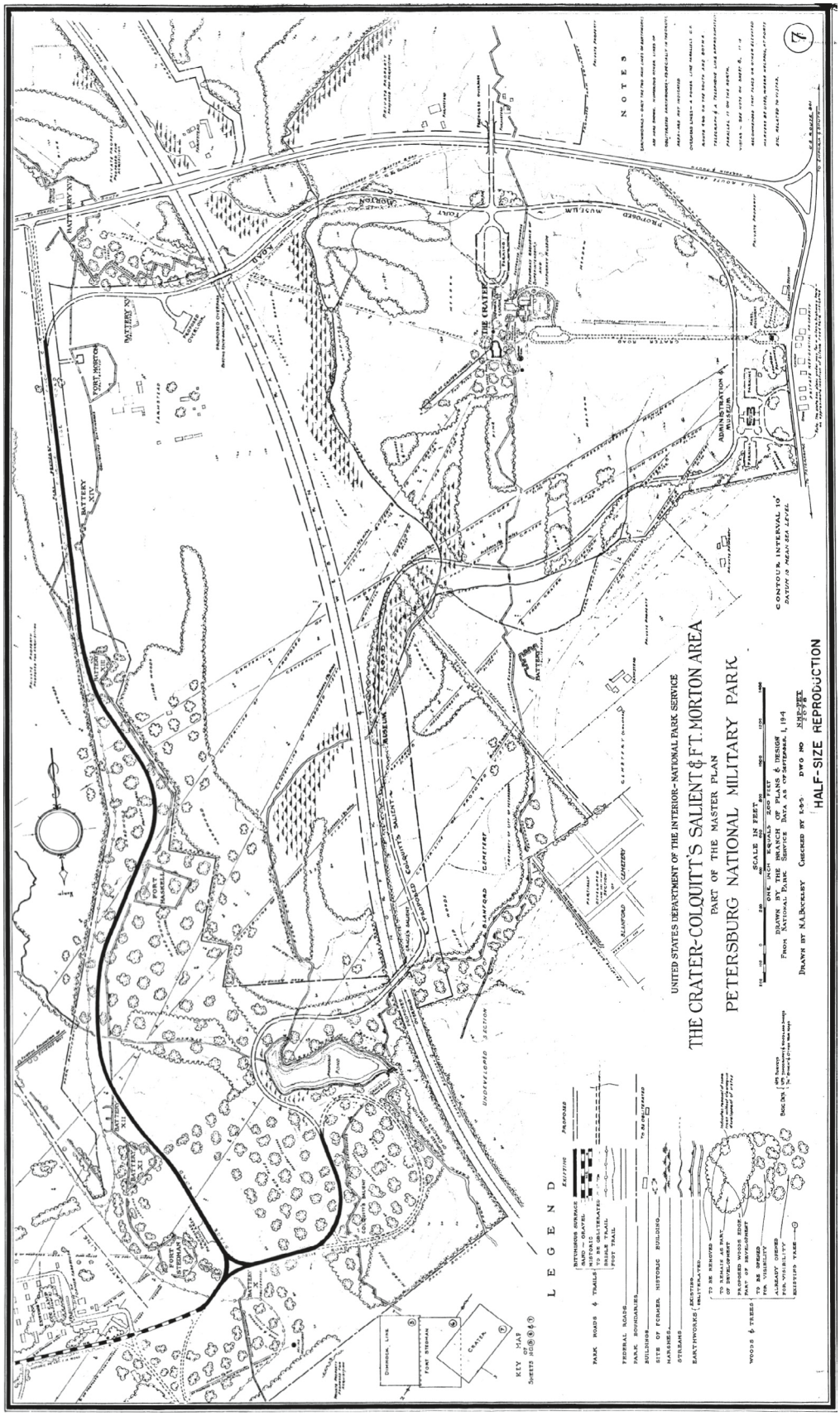


Figure 46. ***The Crater-Colquitt's Salient & Fort Morton Area*****. Developed as part of the 1941 park Master Plan, the drawing illustrates proposed improvements including two vehicular overpasses, new vehicular circulation, designated parking at important overlooks, and vegetation clearing or thinning to rehabilitate battle-era views and vistas. Plan view, 1941 (eTIC, PETE_325_2078_[id121185]).**

Figure 47. Troops from Camp Lee visit the Crater site. During World War II, military personnel from Camp Lee were a major component of the park's visitation. The photograph also documents a row of Eastern redcedars extending north-south from the visitor center (former golf course clubhouse). View northwest, circa 1940s (PETE).

During United States involvement in World War II, in cooperation with neighboring Camp Lee, the park was regularly utilized by troops awaiting deployment and also visited by large numbers of military personnel (Figure 47). Consequently, the Army arranged to maintain park roads its personnel regularly used. This interagency cooperation resulted in very good road maintenance for the park, which continued until 1947.[122]

In the late 1930s through the early 1940s, horseback riders were attracted to the popular trail system at the park. There were a number of riding stables nearby, which meant an increase in riders following construction of "eight miles of bridle trails, equipped with log jumps.[123] Riders frequenting the park trails participated in horse shows held nearby, but by the mid-1950s, the limited use of park bridle trails could no longer justify their continued maintenance.

During the 1940s the growth of the adjacent city began to conflict with various parts of the park. West of the Crater Battlefield, the park initiated plans to acquire property opposite the park Tour Road exit onto South Crater Road (Figure 48). This acquisition was thought necessary in order to prevent residential and retail development from encroaching visually onto the battlefield. Acquiring this property would also secure the site of the Gee House, a battle-era residence that General Robert E. Lee used to observe and dispatch orders from after the mine explosion.

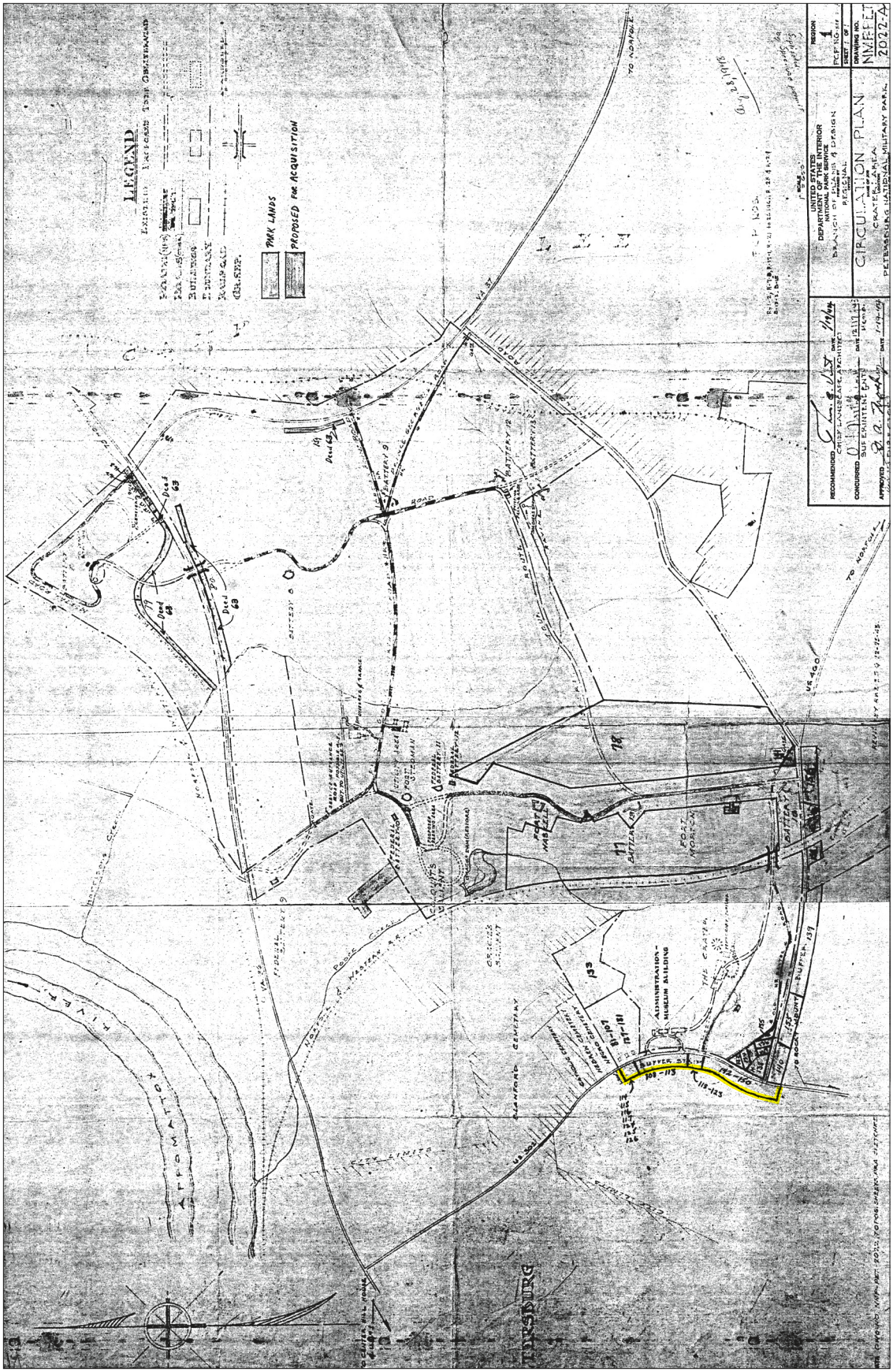


Figure 48. ***Circulation Plan, Crater Area*****. Initially drawn in 1943 and annotated as late as August 1948, the plan identifies a 200-foot buffer strip, highlighted yellow, for future acquisition across US Route 301, locally known as South Crater Road. Plan view, 1948 (PETE).**

On February 17, 1954 the final conclusions were printed of the General Research Program *Study of the Taylor House Remains*; a project the US Department of the Interior executed for Petersburg National Military Park. The report's purpose:

> to study the Taylor House and its significance during the Petersburg Campaign, and to determine if the present remains of the house were a part of the original house, which was burned during the early stages of the fighting around Petersburg. A post-war house of frame construction, built after 1865, was demolished in 1950, and the brick foundations and chimney were left intact, pending investigation (Figure 49).

Figure 49. Taylor (Kitchen Ruins) House. In 1950, the park demolished a postbellum wood frame house, pictured above, and preserved the brick foundation and central chimney, pictured below, for further investigation. In 1954, regional office historians completed a review of the surviving brick features and concluded that the features dated to the early nineteenth century. View northwest, 1950 and 1954 (eTIC, PETE_325_D19_[id66523]).

MISSION 66

The National Park Service embarked on a decade-long program, known as Mission 66, which had the ambitious goal to develop and improve every park in the system by the agency's 50th anniversary in 1966. For battlefield parks, this National Park Service development program nearly coincided with the centennial anniversary of the Civil War. During this period, the Petersburg National Battlefield underwent major planning and development changes that were generally viewed as positive. Former Superintendent Martin R. Conway felt that, "without Mission 66, Petersburg would have most likely been developed piecemeal but perhaps nowhere as boldly conceived nor as grand as under this program."[124]

When Mission 66 began in the mid-1950s, the Petersburg National Battlefield's visitor center remained located at the Crater property, housed within the former golf course clubhouse (Figure 50). A small contact station, built by CCC workers in 1937, was placed in order to greet visitors making their way to Battery V. The park had been planning since the early 1940s to begin the battlefield tour sequence at Battery V, where the initial confrontation between Union and Confederate forces began. Doing so would fulfill the interpretive goal established in the early 1930s by Branch Spalding to aid the visitors' physical understanding of the history by presenting visitors with a chronological sequence of events.[125]

In the Development Plan of 1960, National Park Service planners designed a new tour route, using much of existing park road corridor. After adding two strategically placed automobile overpasses, the park planners changed the beginning and the end of the route, and achieved an improved degree of connectivity, allowing visitors to remain inside the boundaries of the main park unit throughout their visit, and to experience a more seamless tour.[126] The location of the new visitor center at Battery V meant the interpretive sequence would begin at the scene of the opening battle on the Petersburg front. Later in the proposed interpretive sequence, visitors could survey the Crater and surrounding battlefield landscape from a panoramic viewpoint at the Taylor farm. From this position, visitors would also view the "Peace Commission Crossing," where Confederate negotiators "crossed over from Confederate to Union lines on their way to meet with President Lincoln regarding terms for peace."[127]

The park completed the new visitor center near Battery V in May 1967. The completed project included new landscaping, screening of Highway 36, and crepe myrtle planted in the middle of the visitor parking area.[128] Conceived of as the tour route start point, the visitor center was to be accessed via new ramps exiting State Highway 36. The one-way tour route would then cross the highway over a new automobile overpasses, and travel via the park road past Battery XIII. Where the former alignment once required visitors to exit the park and continue west on Route 460, the new park road alignment bent toward a new interpretive overlook

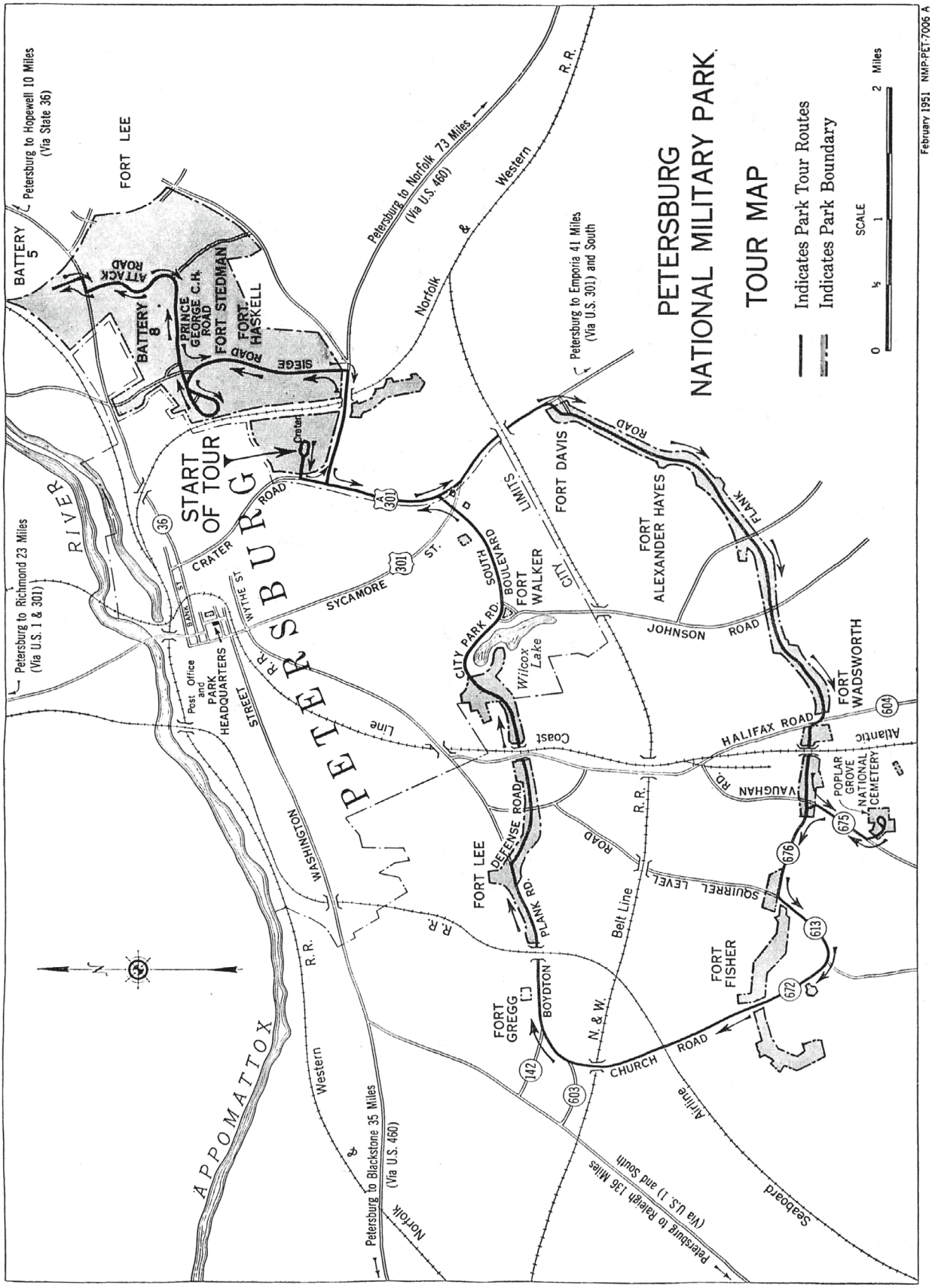


Figure 50. *Tour Map* showing the park Tour Road as a two-way route. Two-way vehicular circulation was necessary to get visitors from the visitor center at the Crater (the former golf course clubhouse) to Battery V to the east and the other park properties to the west. Lacking an overpass at the Norfolk & Western railroad, visitors had to exit the park and use Route 460 for part of their travels. Plan view, 1951 (PETE).

at the former Taylor property, then crossed the railroad at the location of the historic Baxter Road railroad crossing. The new overpass was constructed on the surviving earthen abutments of the Baxter Road overpass. The new curving route continued on to the new Crater parking area located near the historic location of the advanced Union lines. The tour road would exit at the same point as the former Crater entry. The new tour road supported historic interpretation which was clearly a major focus of the park's master planning during this period (Figure 51).

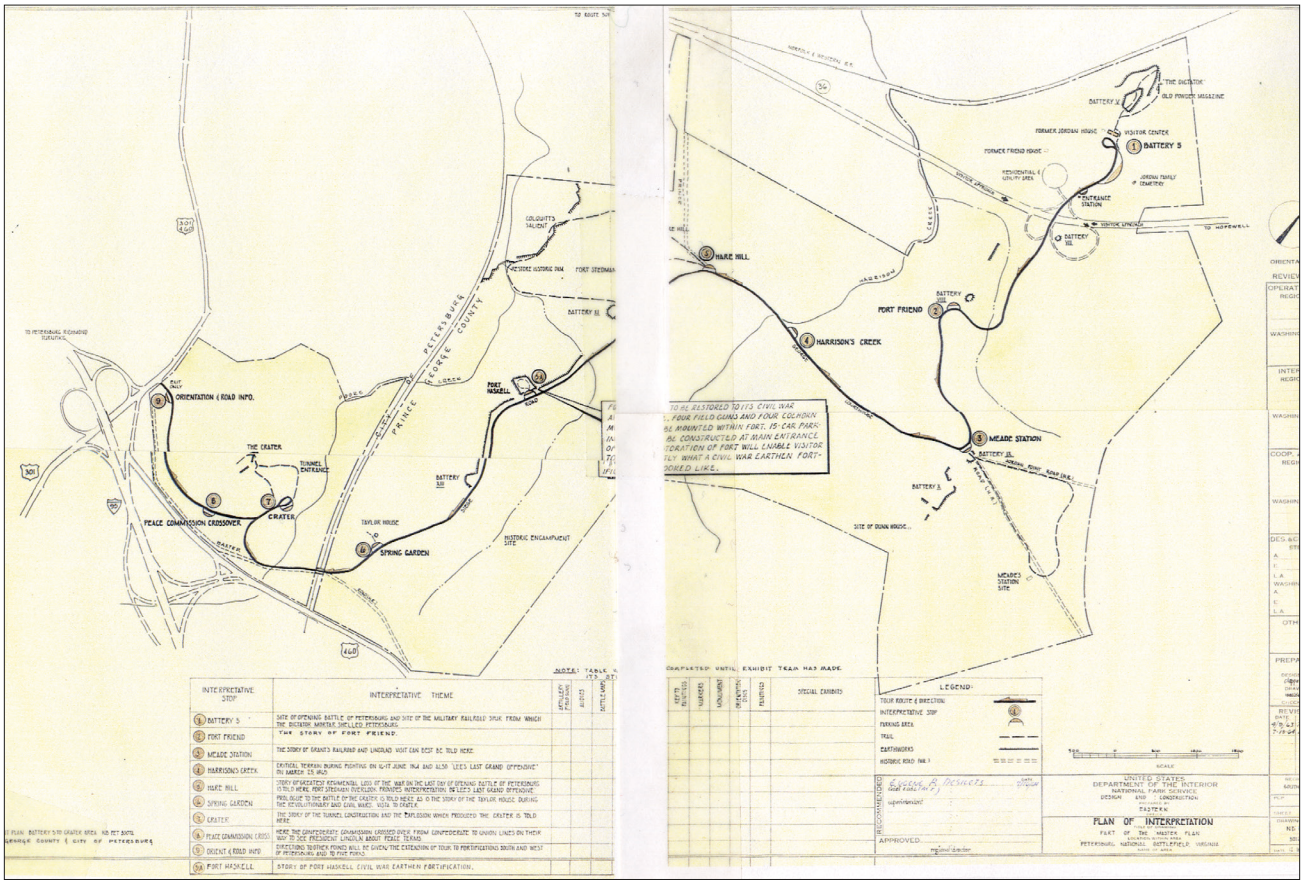


Figure 51. ***Plan of Interpretation*****. A new bridge over the Norfolk & Western right-of-way created a continuous Tour Road within the park providing visitor access from Battery V to the Crater. Plan view, 1961 (PETE).**

After leaving their cars at the new Crater area parking lot, visitors making a walking tour of the Crater area were reoriented for greater consistency with the chronological interpretive theme taken park-wide. Superintendent Chester Brooks remarked, "I came to the conclusion interpretation [at the Crater] was carried out in reverse order; first one showed the visitor the Crater—or the result of the explosion—and then we led the visitor to the tunnel entrance site." Superintendent Brooks proposed that the Crater parking area be placed closer to the tunnel entrance, encouraging visitors to follow the tunnel's path to the Crater void. The superintendent's reasoning, biased as it was towards the Union perspective, prevailed and in 1964 the new parking area was completed (Figure 52).Unaccountably, this preferred location for the new parking area stood directly in the historic "field of fire" between the site of Union Fort Morton and the Confederate Elliott's Salient.

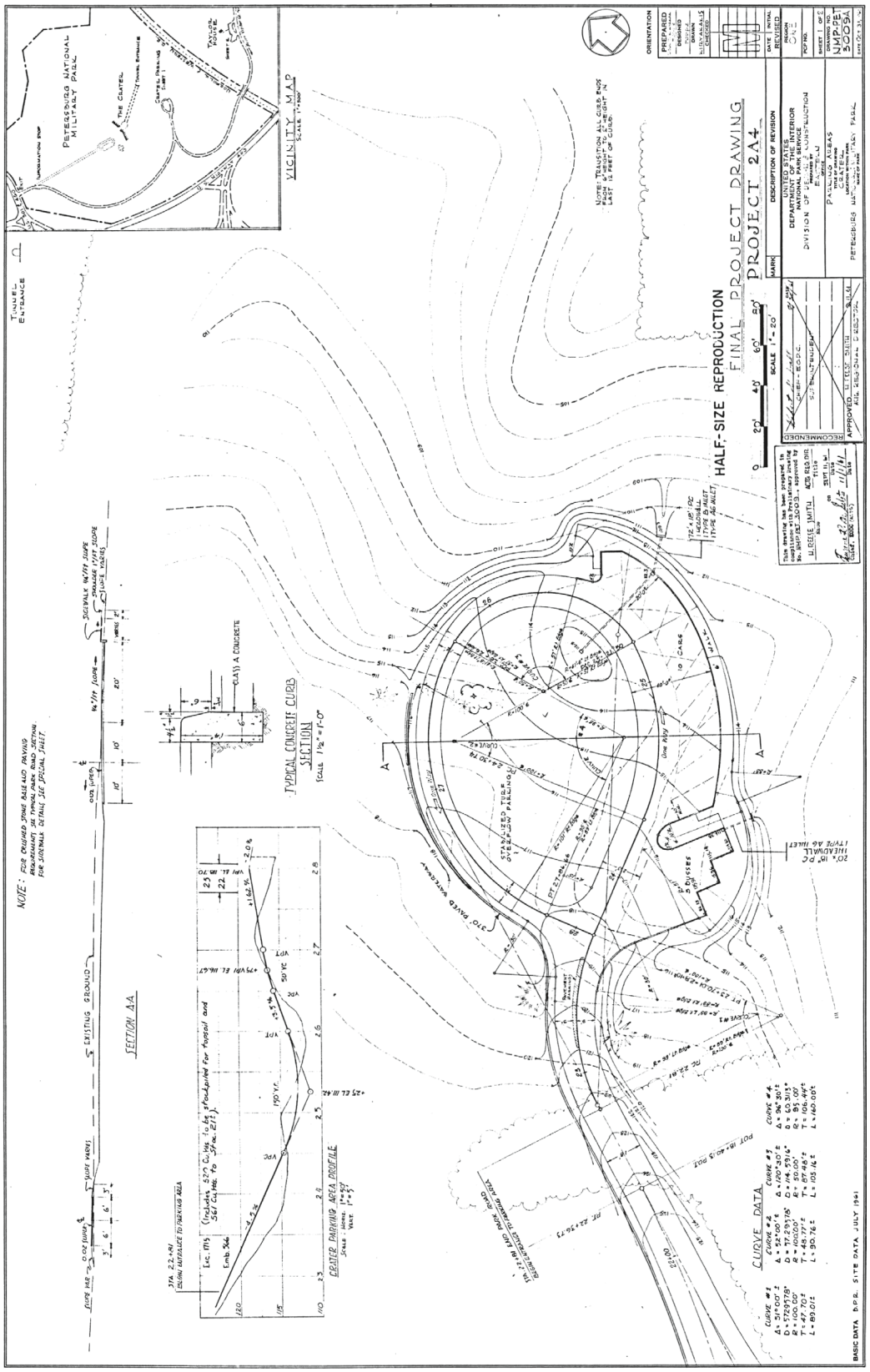


Figure 52. Visitor parking layout at the Mine Tunnel Entrance and Crater site. Consist with NPS Mission 66 designs, the parking layout sought to bring visitors and their vehicles off the Tour Road and close to the battlefield's primary resources. This design directed visitors to the Mine Tunnel Entrance first and then to the Crater matching the features' chronological sequence. Battle era views were already obscured by successional woody vegetation and not considered in the location and layout of the parking. Plan view, 1961 (eTIC, PETE_325_3009A_[id48960]).

However, at this time the flaw in the parking lot's placement was not readily apparent. After the 1936 acquisition of the Crater property, austere National Park Service maintenance budgets during World War II led to the unchecked growth of young trees in the ravine that held both Poor Creek and the Norfolk & Western right of way. At the time of the parking lot construction, after the trees growing in the ravine had matured for over twenty years, the Crater was completely hidden from the Fort Morton site and the Taylor House ruins by this young woodland, along with the ill-conceived new parking lot.

During the 1950s, the US Army expanded Camp Lee and renamed the facility Fort Lee. With the enlarged military base neighboring the park, the park Tour Road carried an increased volume of vehicular rush hour traffic. Park planning during the early 1960s converted the retained segments of the former two-way Tour Road to a one-way road with a multi-use second lane. Remaking the Tour Road as a one-way route accomplished two goals. The first benefit involved a fifty-percent reduction of local non-visitor through-traffic. The second benefit was the support it offered for the desired chronological tour sequence. The second lane of the tour road was made available for use by bicyclists, pedestrians, and for short-term parking.[129]

The major Mission 66 projects completed at Petersburg included the long-sought after visitor center at Battery V, the interpretive tour route from the visitor center to the Crater, new overpasses at Highway 36 and the Norfolk & Western railroad, and finally, a new maintenance facility near Highway 36. The real value of these projects as former superintendent Conway stated, was that they were accomplished within the framework of a comprehensive park master plan, considering present and future needs of the park.[130]

In 1967, the park rebuilt the Crater tunnel entrance once more. Problems with the tunnel were in fact the original reason the area was the design focus in the Mission 66 program. The main body of the tunnel had structural problems, leading to collapse during the late 1950s and the entry was severely deteriorating (Figure 53). The park carefully rebuilt the tunnel entrance utilizing historic records and the entrance continued to be a popular attraction[131] (Figure 54).

Within the Mission 66 program, the National Park Service pursued developments augmenting interpretation in the hope that the projects would deepen a visitors' understanding of the complex and lengthy military engagement at Petersburg. The developments included artillery exhibits, the reconstruction of a portion of the US Military Railroad at Meade Station, soldier's huts, and a sutler's store, as well as a self-guided tour tracing Lee's retreat from Petersburg to Appomattox. The Civil Rights movement of the 1960s further encouraged the agency to work toward a greater interpretive emphasis of the roles African American troops played in the siege.[132]

Figure 53. Visitor perched on dilapidated and dangerous stairs leading to the mine tunnel entrance. Conditions documented in this photograph helped to justify the redesign of pedestrian circulation and rebuilding of the mine tunnel entrance during the National Park Service's Mission 66 efforts. View north, 1958 (PETE).

Figure 54. NPS employee inspecting construction work on the rebuilding of the mine tunnel entrance. View southwest, 1967 (PETE).

A SECOND CENTURY

REDISCOVERY AND REDESIGN

After the impressive program of park-wide site planning and construction accomplished during Mission 66, the Crater site soon became the focus of efforts to further refine the visitor experience. A fundamental shift in the treatment of the Crater took place in 1975, when the park began measures to conserve both the Crater site and nearby Fort Stedman. In its early days as a private tourist attraction on the Griffith farm, people were encouraged to enter the notorious cavity. In the early postbellum years, relic hunting and exploration drew people in, and in the 1920s, prior to inclusion of the Taylor parcel, visitors entered into a rebuilt tunnel segment through the Crater. Years of heavy foot traffic and erosion suggested a new approach. A number of design solutions were considered beginning in 1963, all of which utilized two basic elements (Figures 55 and 56).

The first element of the implemented plan led visitors to a fenced interpretive overlook of the Crater. This offered a broad view of the topography, serving as a backdrop to interpretation, while keeping the Crater itself untrodden. The second element of the plan added planting to better retain the slopes and turfgrass cover was sown to mend the paths worn into the ground by generations of curious visitors.

In 1978, participants in the Youth Conservation Corps (YCC) program cleared a 440-foot by 125-foot swath in the wooded ravine between the Fort Morton site and the Taylor ruins and the Crater. The actual width of the historic vista could not be restored without unduly emphasizing the new Crater parking lot in the middle ground of the viewshed (Figure 57).

ARCHEOLOGICAL INSIGHTS

A number of archeological studies have been undertaken in and surrounding the Crater (Figure 58). In 1978, the Taylor property was restudied in order to determine whether the standing brick ruins were part of the antebellum Taylor dwelling. When the archeologists excavated during this effort, they found the remnants of many structures, such as a probable smokehouse and a dairy (Figure 59). Later studies employing ground-penetrating radar discovered a large underground anomaly in the soil strata. This anomaly was probed in 1982, and was found to be the basement of what is now considered to be the Taylor home. This structure was over twice the size of the existing above ground ruins. The study concluded that the standing ruins are very likely to be of a related kitchen or slave dwelling (Figure 60). Another ground-penetrating radar study was done in search of Fort Morton. The results clearly showed the fort's location and a later

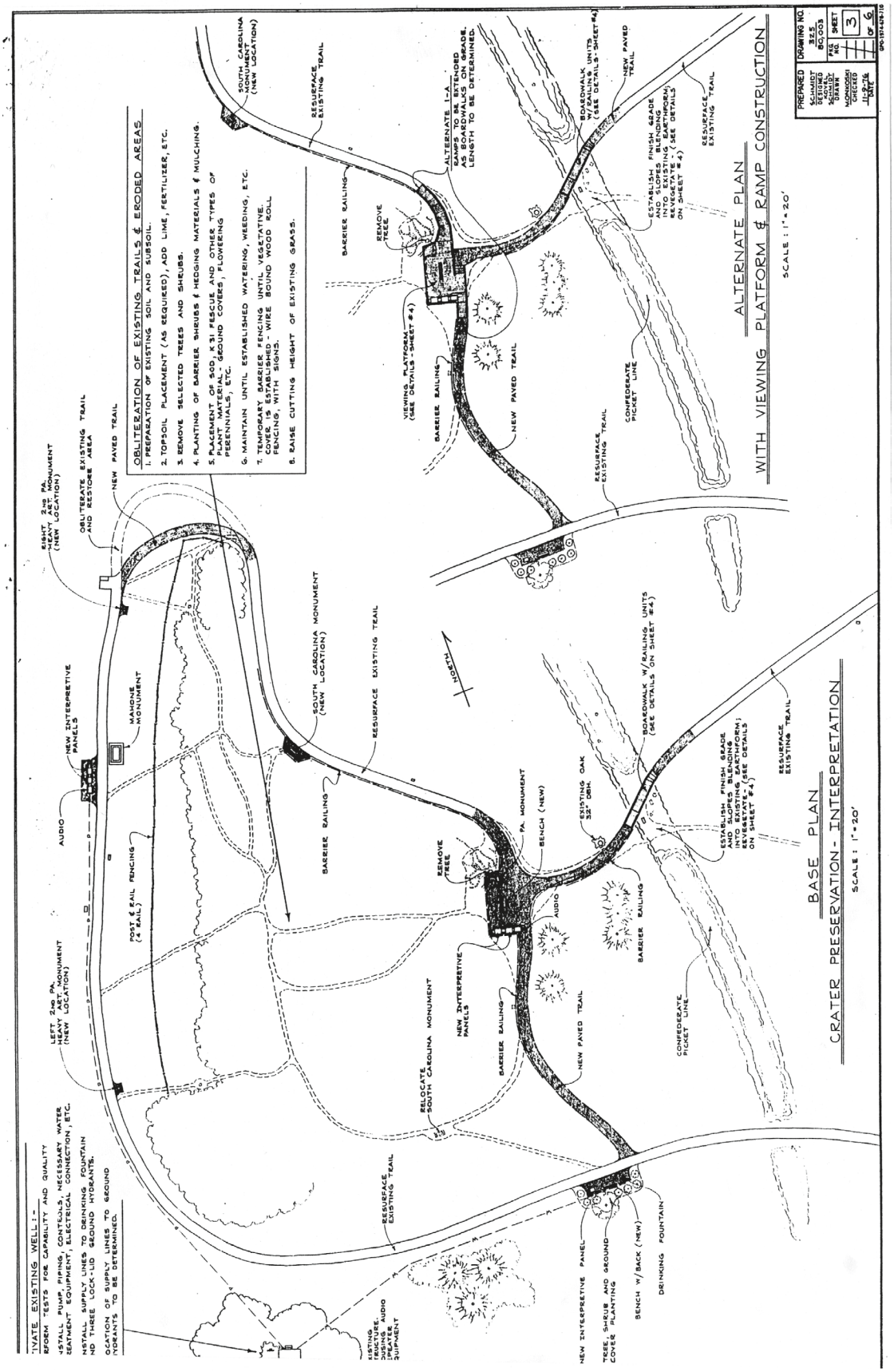


Figure 55. ***Crater Interpretation and Sign Plan*** **documents mid-1970s interpretive planning that includes two options for an east overlook, placement of signs, and fencing to restrict visitors from entering the Crater depression. Note the dashed lines showing existing pathways within the Crater. Plan view, 1976 (PETE).**

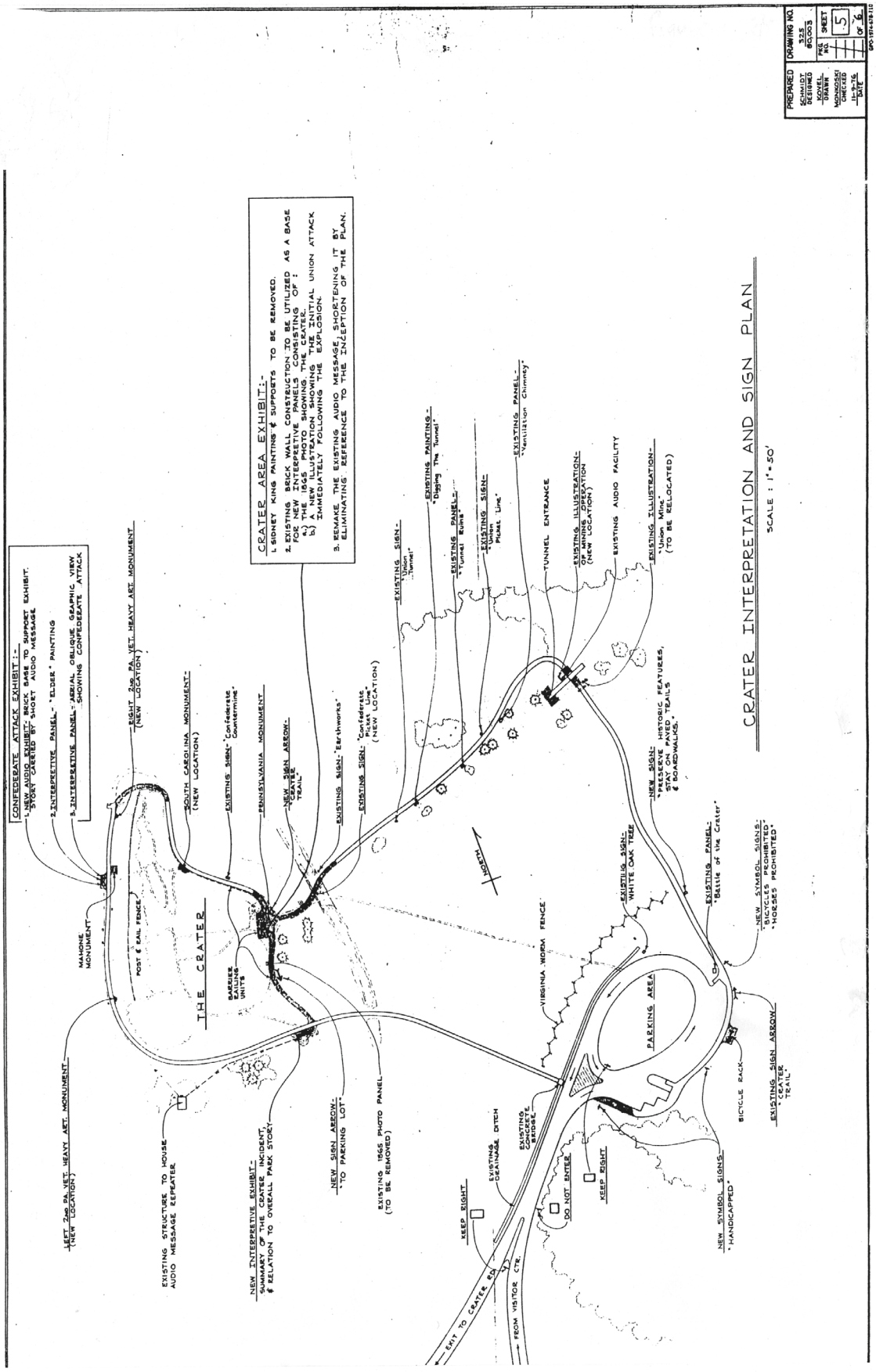


Figure 56. ***Crater Interpretation and Sign Plan*** **provides information regarding the relocation of monuments. Drawing notes also include recommendations of grass seed type and mowing height. Plan view, 1976 (PETE).**

Figure 57. Swath cleared between the Fort Morton site and Taylor Kitchen Ruins, foreground, to the Crater. A Youth Conservation Corps program cleared successional woody vegetation in the Poor Creek valley to reestablish a narrow view corridor. The corridor is part of an expansive view that was critical for observation and artillery fire during the battle. View southwest, 1998 (OCLP).

Figure 58. Archeological excavations in the Crater site. The park began a series of archeological excavations and non-destructive reconnaissance techniques in the 1970s. Note the height of the vegetation within the Crater depression and the Crater of Mine Monument. View east, 1976 (PETE).

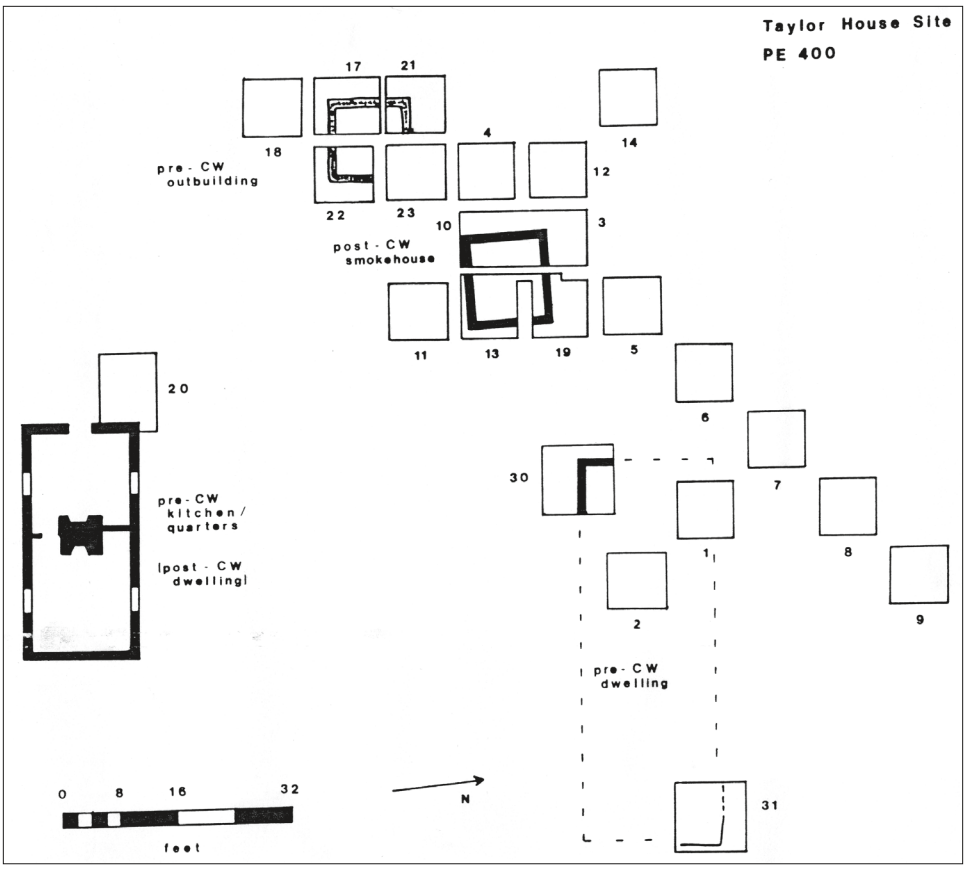


Figure 59 (top). Architectural ruins and remnants discovered both above and below ground at the Taylor farm site. The principal Taylor dwelling was most likely burned in the battle on June 18, 1864. Plan view, 1978 (Taylor farm archaeological study).

Figure 60 (right). Taylor Kitchen Ruins. Archeological studies in the late 1970s and early 1980s confirmed that the brick foundation and chimney on the former Taylor property served as a kitchen at the time of the battle and were subsequently rebuilt into a home. View southwest, 1998 (OCLP).

probe provided verification (Figure 61). The final report was completed in April 1995, culminating a series of studies of the Fort Morton site begun around 1975.[133]

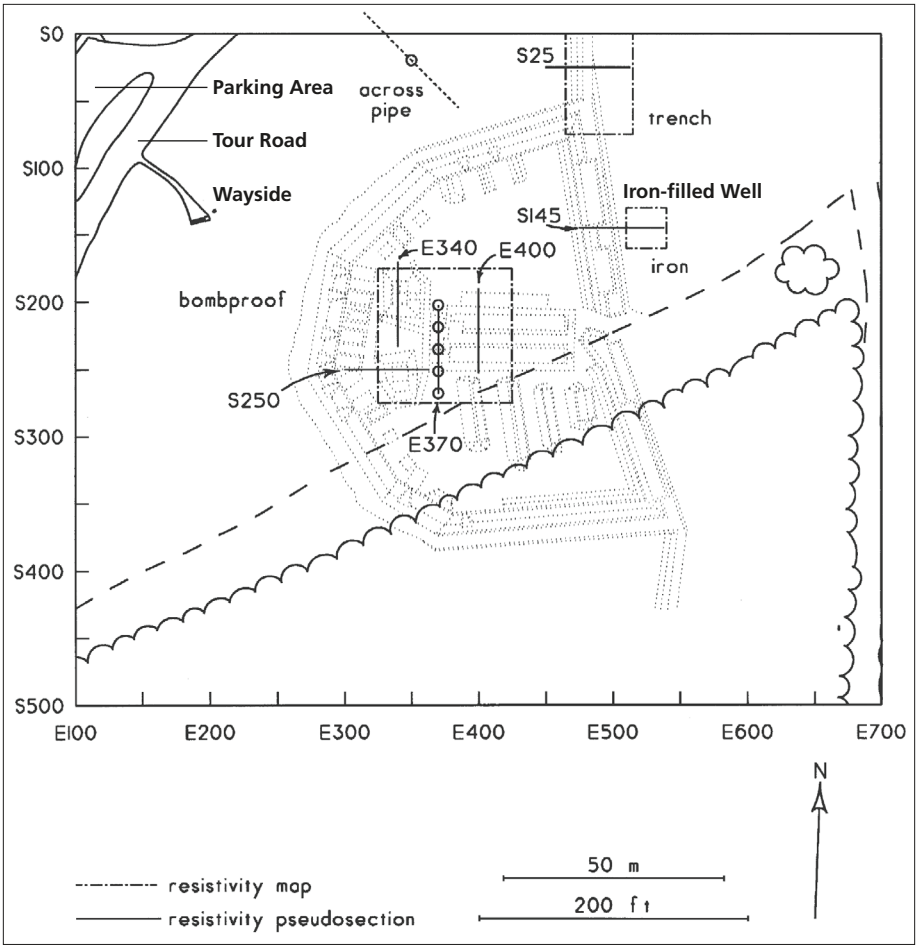


Figure 61. Fort Morton, Areas of Resistivity Survey. Archeological geophysical sensing techniques detected anomalies consisted with the assumed location of Fort Morton. Plan view, 1998 (Bruce W. Bevan, *Geophysical Exploration for Archaeology: An Introduction to Geophysical Exploration*, Figure B7).

CURRENT PARK MANAGEMENT

By the late 1960s, park administrators noticed changes in the way the park was being used. Cyclical interest in Civil War history was at a temporary downturn following the fervor of the Civil War centennial. Anti-military sentiment had become pervasive among young adults due to the unpopular Vietnam War. More groups of people were coming to use the park for recreation. By the 1970s, the public often used the flat open field west of the Crater for picnicking and playing games. Also, there were people who came to the park to maintain their cars alongside the park tour road.

Park management found these uses problematic, interfering with its use as a historic battlefield and educational area. The park found itself more strictly enforcing rules prohibiting alcohol use and automobile maintenance within the park boundaries. In addition, parking on the side of the Tour Road west of the Crater interpretive stop was prohibited. The grass was allowed to grow tall surrounding the Crater in order to deter picnicking and public gatherings. The longer grass also reinforced the historical agricultural setting of Griffith's

former farm. This combination of changes generally discouraged the recreational atmosphere that had become so prevalent in the open field.[134]

During 1997, the park considered sixty percent of its nearly 450,000 visitors to be there for strictly recreational purposes.[135] Throughout 1997, lack of security continued to be an issue. After hours one December day, someone kicked in the protective grate at the Crater tunnel entry, and went inside to build a fire. Unfortunately, the fire spread to the tunnel's supporting structure. The culprit was never discovered and no one was injured, but the combination of the fire and the powerful fire-hose water stream damaged the rebuilt tunnel entry beyond the scope of simple repairs.[136]

INTERPRETATION ENHANCEMENTS

Many recent changes have been made at the park in the name of improved historical interpretation, with special emphasis placed on finding the best way to tell all the stories the park holds. Beginning in 1997, the park has been offering daily walking tours of both the Crater and Fort Stedman, once again offering the public the kind of personalized services that earlier visitors enjoyed (Figure 62).

Figure 62. The park revived ranger-led tours of the battlefield in 1997. The pictured tour group, from the 1960s, is exiting the Crater over the Trench Cavalier. To improve resource protection, the park stopped this formal practice in the 1970s. View north from the Crater perimeter walk, circa 1960s (PETE).

These programs increase the depth of visitor understanding, presenting more information than the self-guided tours can be expected to clearly convey. These ranger guided tours began to be supplemented beginning during the summers of 1997 and 1998 when interpretive markers with audio-interpretation were placed at the eight driving-tour stops, to further enhance the self-guided tour. The markers, or "interpretive waysides," are designed to provide easily accessible information, and are currently being updated and replaced to reflect the roles of all participants in the battle: Union, Confederate, white, African and Native American (Figure 63). They enhance the guests' experience by interpreting the

Figure 63. The Crater overlook and interpretive waysides. The park completed the installation of new interpretive waysides in 1998. Since the 1970s, fencing has excluded visitors for the interior of the Crater. View south, 1998 (OCLP).

most recent research available, such as the latest Taylor property and Fort Morton site studies.[137]

IMPLICATIONS TODAY

The Crater with its grassy void, collapsed tunnels, and gruesome stories, continues to fascinate park visitors (Figure 64). Yet, from August 1, 1864, to the present day, this landform has been subject to continuous change. What is visible embowered amidst trees, conveys little of the horror of those last days of July 1864. Where the causes and effects of the American Civil War will continue to be debated well into the future, so too will any meaning ascribed to the Crater Battlefield. Yet the Crater's continued presence is remarkable, and a simple fact beyond dispute. Both relic and reliquary, the Crater Battlefield holds lessons much too important to be forgotten.

Figure 64. Visitors at the Crater site with the Mahone Monument in the background. View west from the Crater overlook, 1998 (OCLP).

ENDNOTES

1 Lee A. Wallace Jr., *A History of Petersburg National Battlefield to 1956* (US Department of the Interior, National Park Service, History Division, 1983), 3-5, citing James G. Scott and Edward A. Wyatt IV, *Petersburg's Story: A History* (Petersburg, VA: Titmus Optical Co., 1960), 94-97.

2 William C. Davis, *Death in the Trenches: Grant at Petersburg*, rev. ed., Civil War series, (Alexandria, VA: Time-Life Books, 1987), 15.

3 Geoffrey C. Ward, Ric Burns, and Ken Burns, *The Civil War* (New York: Alfred A. Knopf, Inc., 1990), 288.

4 Carleton Beals, *War within a War: The Confederacy Against Itself* (Philadelphia: Chilton Books, 1965), passim.

5 Davis, *Death in the Trenches,* frontispiece.

6 E. C. Pielou, *After the Ice Age: The Return of Life to Glaciated North America* (Chicago: The University of Chicago Press, 1991), 108; David G. Anderson and Kenneth E. Sassaman, eds., *The Paleoindian and Early Archaic Southeast* (Tuscaloosa: The University Alabama Press, 1996), 5.

7 Anderson and Sassaman, *The Paleoindian and Early Archaic Southeast*, 7.

8 Soldiers removed a large bone, believed to be part of a mastodon thigh bone, during the 1864 excavation of the Union mine tunnel. Paleoindian seasonal sites would have been located in resource-rich areas, including areas conducive to megafauna hunting. The soldiers' uncorroborated story is interesting in the context of possible pre-contact archeological resources in the project area. For the purported mastodon discovery, please see Michael A. Cavanaugh and William Marvel, *The Petersburg Campaign: The Battle of the Crater "The Horrid Pit" June 25 – August 6, 1864,* 2nd ed., Virginia Civil War Battles and Leaders Series (Lynchburg, VA: H.E. Howard, Inc., 1989), 9.

9 David G. Anderson and Robert C. Mainfort Jr., *The Woodland Southeast* (Tuscaloosa: The University of Alabama Press, 2002), 1-2.

10 Richard J. Dent Jr., *Chesapeake Prehistory: Old Traditions, New Directions* (New York: Plenum Press, 1995), 231.

11 Ben C. McCary, *Indians in Seventeenth Century Virginia* (Charlottesville: University Press of Virginia, 1957), 3.

12 Ibid., 7.

13 Douglas W. Boyce, "Language, Territory, and Environment," in *Handbook of North American Indians: Northeast* (Washington, D.C.: Smithsonian Institution, 1978), 282.

14 Gregory A. Waselkov, Peter H. Wood, M. Thomas Hatley, eds., *Powhatan's Mantle: Indians in the Colonial Southeast*, rev. ed. (Lincoln: University of Nebraska Press, 2006), 219.

15 Ibid., 221.

16 George Percy, "Observation by Master George Percy, 1607," in *Narratives of Early Virginia 1606-1625* (1907; repr., New York: Barnes and Noble, 1959), 14; John Smith, "A True Relation, 1608," in *Narratives of Early Virginia 1606-1625* (1907; repr., New York: Barnes and Noble, 1959), 34.

17 P.H. Drewry, "Fort Henry" *William and Mary Quarterly*, Jan. 1923.

18 WPA Guides, "A Guide to Prince George and Hopewell and Dinwiddie County," *The Countrey of Apamatica*, 1939.

19 Gibson Worsham, "Entrepot, Town, Borough, and City: An Urban History of Petersburg, Part Three," *Urban Scale Petersburg* (blog), April 28, 2014, http://urbanscalepetersburgvirginia.blogspot.com/2014/04/entrepot-town-borough-and-city-urban.html.

20 John Bennett Boddie, *Southside Virginia Families*, Vol. 1 (1955; repr., Baltimore: Genealogical Publishing Company, Inc., 1966), 25.

21 Ibid., 26. Daughters names include, *Sarah, Rachel, Mary, Anne and Elizabeth.*

22 Claiborne T. Smith Jr., "The Peterson Family" *The Southside Virginian*, vol. 8, 34.

23 Prince George County, Virginia. Deeds, 1787-1792; 347-348.

24 W. M. Paxton, *The Marshall Family* (Cincinnati: Robert Clarke & Co., 1885), 78.

25 The Norfolk and Petersburg Railroad is the feature's battle-era name. In 1870, the railroad merged with other lines to form the Atlantic, Mississippi and Ohio Railroad (AM&O). In 1881, the AM&O was reorganized and renamed Norfolk & Western. Finally, in 1990, the Southern Railway and Norfolk & Western Railway merged to form the Norfolk Southern Railway, the current track owner in the Crater Battlefield. The document will use the railroad names that correspond to their appropriate time period.

26 Kevin M. Levin, *Remembering the Battle of the Crater: War as Murder* (Lexington: University Press of Kentucky, 2012), 47; "Norfolk and Petersburg Railroad," accessed March 2017, https://en.wikipedia.org/wiki/Norfolk_and_Petersburg_Railroad.

27 "1850 Agricultural Census," "1860 US Decennial Census," and "1860 Slave Schedule," *Ancestry*, accessed February 2017, https://www.ancestry.com.

28 The 1860 Slave Schedule lists "6" and "3" under Sarah Shands in the column for slave houses. Sarah Shands is the next owner entry after Taylor. The recorder tended to list the number of slave houses at the end of each entry and 6 is listed first under Shands with 3 listed at the end of Shands. That, coupled with the fact that Shands had less slaves than Taylor, leads to a reasonable conclusion that the Taylor property contained six slave houses in 1860.

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Existing Conditions

This chapter describes the existing condition of the Crater Battlefield. It begins with a description of the regional context and park operations. This context is followed by a landscape description that documents each of the landscapes characteristics that define the Crater Battlefield, including buildings and structures, archeological sites, circulation, natural systems and features, vegetation, views and vistas, and small-scale features. Detailed descriptions of each landscape feature are presented in the following chapter, Analysis and Evaluation.

The narrative is supplemented by existing conditions drawings (Drawings 3 and 4). These drawings are based on field inventories and reviews (2015–17), Virginia Geographic Information Network color orthophotographs (2013), LiDAR data provided by Petersburg National Battlefield (2013), and GIS data provided by Petersburg National Battlefield and the City of Petersburg.

REGIONAL CONTEXT

The Crater Battlefield project area is located in the City of Petersburg, Virginia. The battlefield is within the park's Eastern Front unit, a park management area that lies within the city limits and Prince George County. The unit serves as the park's administrative center and shares boundaries with the city and the Fort Lee US Army base. The Eastern Front presents a park-like appearance to the typical visitor who enters the main gate from State Route 36 and proceeds on the Tour Road. The Crater Battlefield project area is roughly two miles south on the Tour Road from the park entry.[1]

PHYSIOGRAPHIC

The Crater Battlefield is near the Fall Line, the boundary zone between softer sedimentary soils in the Tidewater Region and the harder bedrock underlying the Piedmont Region. Soil profiles in the study area extend greater than 80 inches and consist of sandy loams, loams, and then clay loams. Soil classifications include Uchee loamy sand, Emporia sandy loam, and Mattaponi sandy loam. Both the Uchee and Emporia types are identified as prime farmland soils by the US Department of Agriculture with the Mattaponi class categorized as a farmland soil of statewide importance. A band of soil within the Poor Creek valley is identified as Roanoke loam and is marked by poor drainage characteristics and greater clay content higher in the soil profile than the surrounding types.[2]

The Crater Battlefield lies in the humid subtropical climate zone (Köppen climate classification Cfa), with hot, humid summers and mild to cool winters that are moderated by the Chesapeake Bay. The Crater Battlefield is also located within the US Department of Agriculture plant hardiness zone 7b, where vegetation is hardy to between five and ten degrees Fahrenheit.[3]

CULTURAL

The City of Petersburg is bordered on the north by the Appomattox River and marks the furthest navigable point on the river before the Fall Line. The city's history and development is connected to transportation and trade facilitated by navigable rivers, then railroads, and most recently, the interstate highway system. The junction of I-85 and I-95 lies south of the city's historic core—the section of the city closest to the Appomattox River—and both CSX Transportation and Norfolk Southern Railway Company provide freight rail services.

The Crater Battlefield project area corresponds to the core of the Griffith and Taylor Farm properties present at the time of the battle. The project area is located in the western half of the park's Eastern Front unit and following the park boundary, is bounded on the south by Winfield Road and County Drive, on the west by South Crater Road, and on the north by People's Memorial Cemetery and Blandford Cemetery. The northern boundary wraps around the Norfolk Southern Railroad line and for the purposes of this report, continues to the east passing to the south of Fort Haskell. The eastern edge of the Crater Battlefield is defined by the eastern edge of Tract 01-115, a parcel that comprised part of the Taylor Farm. The park and project area include a smaller, separate area west of South Crater Road that contained the battle-era Gee House.

North of the park and project area, Blandford Cemetery has been used as a burial ground since the early eighteenth century with the oldest marked grave inscribed with the date 1702. The cemetery is the final resting place for 30,000 Confederates killed during the Petersburg Campaign. South of Blandford Cemetery, People's Memorial Cemetery began in 1840 as a cemetery for Petersburg's free African Americans. Nineteenth century names for the cemetery include Providence Cemetery and Scott Cemetery and in 1986, trustees of the cemetery deeded the land to the City of Petersburg.[4]

The park's Eastern Front unit is bounded on the east by Fort Lee, begun in 1917 as Camp Lee. The US Army complex is presently home to the US Army Combined Arms Support Command and the Army Logistics University, Army Ordnance School, Army Quartermaster School, and Army Transportation School. The facility regularly hosts 26,000 people a day consisting of military service members, their families, and government civilians and contractors.[5]

POLITICAL

The City of Petersburg consists of 23.1 square miles and is located in south-central Virginia roughly 23 miles south of Richmond, 125 miles south of Washington, D.C., and 78 miles northwest of Norfolk. Census estimates from 2015 calculate the city's population to be 32,477, representing a 0.2% population increase since the 2010 decennial census. Census Bureau estimates conclude the city's median annual household income is $35,126 and 24.9% of the city's population live below the Federal poverty line.[6] Zoning around the Crater Battlefield is primarily residential with a business zone (B-2) along South Crater Road and mixed-use zones (M-1, MXD-1, MXD-2) south of County Drive and Hickory Hill Road.[7]

PARK OPERATIONS

VISITOR SERVICES

The Crater Battlefield, part of Petersburg National Battlefield's Eastern Front unit, is open year-round to the public with the Tour Road and parking areas open from 9 a.m. to dusk. The park contains a 16-stop driving tour which takes visitors through all four units: Grant's Headquarters at City Point, the Eastern Front, the Western Front, and the Five Forks Battlefield. In the Crater Battlefield, the Taylor Farm is tour stop 7 and The Crater is tour stop 8. In addition to the Tour Road, interpretive and multi-use trails in the Crater Battlefield are part of a ten-mile system of trails in the Eastern Front unit. Throughout the year, park staff present a variety of talks, tours, living history demonstrations, and special events. Visitors have an opportunity to explore the battlefield themselves with information available through educational waysides and also cell phone tours and podcasts at some locations.[8]

ADMINISTRATION

Petersburg National Battlefield's legislative boundary contains 7,238 acres that lay in separate units in a semi-circle to the east, south, and west of the City of Petersburg. The geographical management units include Grant's Headquarters at City Point, the Eastern Front, the Western Front, and the Five Forks Battlefield.[9] Visitors planning to see all the units would begin at the visitor center, located in the Eastern Front unit, and branch off to the east to reach City Point or to the west for the Western Front and Five Forks Battlefield. Visitors may continue from the visitor center on the Tour Road for four miles through the Eastern Front starting with Battery V and concluding with the Crater.

Landscape maintenance is directed by the park's Facility Manager and work for the Crater Battlefield is primarily focused on mowing the open fields and mowing

and trimming along the Tour Road, parking areas, and monuments. Maintenance operations and equipment are housed south of the visitor center in the Eastern Front unit.

LANDSCAPE CHARACTERISTICS

The following section documents the general landscape characteristics of the Crater Battlefield landscape. Detailed descriptions and illustrations of each landscape feature are presented in the following chapter, Analysis and Evaluation.

BUILDINGS AND STRUCTURES

Buildings are elements constructed primarily for sheltering a form of human activity in a landscape. Structures are elements constructed for functional purposes other than sheltering human activity in a landscape. Engineering systems are also structures.

Buildings and structures at the Crater Battlefield primarily consist of battle-era earthen defensive structures such as parapets, trenches, and covered ways, as well as earthen batteries and bombproofs (Figure 65). Types of vegetative cover vary for the earthen structures and range from turf on Battery XIII to non-historic successional woods over Battery XVI and the Union Zig Zag Trench. Additional buildings and structures include remnants from the Crater Battlefield Association golf course and a contemporary visitor comfort station.

Figure 65. Union Zig Zag Trench. View north, 2015 (OCLP).

ARCHEOLOGICAL SITES

Archeological sites are the ruins, traces, or deposited artifacts in a landscape, evidenced by the presence of either surface or subsurface features.

The park's draft National Register nomination, last updated in December 2014, identifies the Crater depression, the Confederate countermines, and the Union Mine Tunnel Entrance as historic associated features with the Eastern Front site (Figure 66). The document further identifies the Taylor House Site and Kitchen Ruins as an archeological resource associated with the Union occupation of private residences in 1864. Archeological excavations at the Crater and Union Mine Tunnel Entrance were undertaken in 1937, 1958, 1962, and 1975. Archeology at the Taylor House Site and Kitchen Ruins includes excavations initiated in 1978 and 1981 as well as ground-penetrating radar and proton magnetometer completed in 1979. A pre-contact assemblage dating to the Halifax phase of the Late Archaic period (3,500–2,000 BCE) was recovered during the excavations at the Taylor House Site and Kitchen Ruins. Additional archeological evidence of pre-contact settlement and activities at the Crater Battlefield is likely, however, specific investigations have been limited.[10]

Figure 66. Mine Tunnel Entrance. View southwest, 2015 (OCLP).

CIRCULATION

Circulation includes the spaces, features, and applied material finishes that constitute the systems of movement in a landscape.

Circulation at the Crater Battlefield consists of a railroad line, vehicular and pedestrian features, and traces of historic circulation routes no longer used (Figure 67). The Norfolk Southern Railroad bisects the battlefield and presently serves as an active rail freight line. Vehicular features include roads and access-ways, parking areas, and pull-offs, almost all of which are paved surfaces. Pedestrian features include paved walks at parking areas, to the Mine

Figure 67. Tour Road with designated bike lane on the right. View east, 2015 (OCLP).

Tunnel Entrance, around the Crater, and at the Massachusetts Monument. Unpaved interpretive and multi-use trails extend the pedestrian system through successional woodlands north and southeast of the Crater and west of Battery XIII. A portion of the present Tour Road follows the alignment of the battle-era Baxter Road. Southeast and southwest of the Tour Road, a trace of Baxter Road is present with the former roadbed at a lower elevation than the surrounding grades.

NATURAL SYSTEMS AND FEATURES

Natural systems and features are the natural aspects that have influenced the development and physical form of a landscape.

Poor Creek begins draining an area south of the Crater Battlefield and flows north under Interstate 95 and County Drive before entering the park. The watercourse continues north cutting a valley between the Crater and the Norfolk Southern Railroad line (Figure 68). Turning northeast, the creek passes under the railroad line and exits the project area to the west of Fort Haskell. Poor Creek continues flowing north and empties into the Appomattox River.

Figure 68. Poor Creek. View northwest, 2015 (OCLP).

VEGETATION

Vegetation includes the deciduous and evergreen trees, shrubs, vines, ground covers, and herbaceous plants, and plant communities, whether indigenous or introduced in a landscape.

Vegetation at the Crater Battlefield can be divided into three categories: successional woodlands, fields and meadows, and individual trees. The majority of the study area is covered by successional woodlands that have grown at varying rates since the end of maintained agriculture fields and also the closing of the Crater Battlefield Association golf course in the 1930s (Figure 69).

Figure 69. Successional woodlands, fields and meadows, and individual trees. View west, 2015 (OCLP).

Between the Eastern Front Tour Road and South Crater Road is an open area of fields and meadows bordered on the north and south by the successional woods. The open area between Poor Creek and the Norfolk Southern Railroad line resulted from a clearing effort the park completed around 2004. In lower lying areas along Poor Creek, woody species such as sycamore (*Platanus* sp.), sweetgum (*Liquidambar* sp.), and tulip poplar (*Liriodendron tulipifera*) are rapidly growing and exceeding heights of 15 feet. The edges of the Tour Road, parking areas, and pedestrian paths are mown more frequently, however, this is no formally manicured lawn at the Crater Battlefield.

Two mulberries (*Morus* sp.) stand near the Taylor House Site and Kitchen Ruins and a sycamore (*Platanus* sp.) marks the edge of the trail leading south from the ruins to Battery XVI. Around the Crater, dozens of Eastern redcedar (*Juniperus virginiana*) appear along the pedestrian walkways, around the Confederate trench cavalier, and mark the area around the former Crater Battlefield Association clubhouse. A large deciduous tree, a Southern red oak (*Quercus falcata*), is growing over the mine tunnel near the east overlook to the Crater and has been nominated for "The Remarkable Trees of Virginia," a four-year crowdsourcing

effort to document the states' largest, oldest, most historic, beautiful, and beloved trees.[11]

VIEWS AND VISTAS

Views and vistas are the prospect created by a range of vision in a landscape, conferred by the composition of other landscape characteristics and associated features. Views are the expansive or panoramic prospect of a broad range of vision, which may be naturally occurring or deliberately contrived. Vistas are the controlled prospect of a discrete, linear range of vision, which is deliberately contrived.

Views at the Crater Battlefield include lines of sight from Fort Morton, the Union headquarters, to the Crater and the Confederate trenches and tactical views or fields of fire maintained by Confederate batteries and artillery positions (Figure 70). Culminating with a clearing project completed in 2004, the park opened and presently maintains views from Fort Morton to the Crater. Views to the Confederate trenches north of the Crater, particularly the point reached by USCT forces during their assault, are obscured by successional woody vegetation. Views from the former Confederate batteries and artillery positions are obscured by successional woody vegetation and complicated by the fact that the majority of the positions, such as Wright's Battery, are on private property outside the park boundary.

Figure 70. View from Fort Morton to the Crater. View west, 2017 (OCLP).

SMALL-SCALE FEATURES

Small-scale features are the elements providing detail and diversity for both functional needs and aesthetic concerns in a landscape.

Historic small-scale features include monuments and markers installed around the Crater and at the mine tunnel entrance (Figure 71). Contemporary small-scale features in the landscape are primarily designed to support park operations and interpretation and include cannon at the Battery XIV site, at Fort Morton, and at the Crater, fences around the Crater and at the exit to South Crater Road, and directional and interpretive signage.

Figure 71. Monuments and markers along the Crater perimeter walk. View northeast, 2015 (OCLP).

ENDNOTES

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9 On December 23, 2016, President Barack Obama signed legislation that would expand Petersburg National Battlefield from 2,659 acres to 7,238 acres. The law authorizes the Secretary of the Interior to acquire land, identified in the proposed boundary expansion presented in the park's 2004 General Management Plan, from willing sellers only, by donation, by purchase with donated or appropriated funds, by exchange, or by transfer. The majority of the proposed lands are located in the Western Front and Five Forks Battlefield units. The expansion includes 15 acres north of the Crater Battlefield. For additional information, please see: National Defense Authorization Act for Fiscal Year 2017, Public Law 114-328 (2016).

10 Laura J. Kline et al., *National Register of Historic Places Registration Form for Petersburg National Battlefield* (Public Archaeology Laboratory, Draft, December 2014), Sect 8:147, 156, and 166. There are no surviving reports detailing the excavations directed by park historians in 1937 and 1958.

11 "Remarkable Trees of Virginia Project," College of Natural Resources and Environment at Virginia Tech, accessed December 2016, http://web2.cnre.vt.edu/4h/remarkabletree/detail.cfm?AutofieldforPrimaryKey=1614.

Cultural Landscape Report

Crater Battlefield Petersburg National Battlefield

Petersburg, Virginia

Existing Conditions

National Park Service

Olmsted Center for Landscape Preservation

www.nps.gov/oclp

SOURCES

1. Park GIS Files
2. City of Petersburg GIS Files
3. Ortho Imagery, Virginia Geographic Information Network, 2013

DRAWN BY

Tim Layton
AutoCAD and Illustrator CS6, 2017

LEGEND

- Park Boundary
- Project Area Boundary
- Easement
- Approximate Civil War Trust Property
- Building / Structure
- Forested Canopy
- Earthen Defenses
- Creek / Stream
- Paved Area
- Headwall
- Railroad
- Sidewalk / Trail / Footpath
- Cannon
- Monument / Marker
- Tablet
- Worm Fence
- Post & Rail Fence

NOTES

1. Projection: Virginia State Plane, South Zone, NAD 83 HARN, Feet
2. Contour Interval = 2'-0"
3. All features shown in approximate scale and location

0' 100' 200' 400'

Drawing 3

Confederate Tracery
Former Golf Clubhouse (removed ca. 1955)
PA Volunteers Flank Marker
PA Volunteers Heavy Artillery Monument
Commemorative Crater Monument
PA Volunteers Flank Marker
Crater Loop Trail
Mahone Monument
Mahone's Brigade Monument
Trail
Well House Foundation
Mine Tunnel Loop Trail
Comfort Station
Confederate Trench Cavalier
South Carolina Monument
The Crater
Confederate Counter Mines
Crater of the Mine Monument
Confederate Covered Way?
Confederate Picket Line Tracery
Confederate Picket Line established Sept. 1864
Confederate Picket Line established Sept. 1864
Surface Depression of Mine Tunnel
Mine Tunnel
Former Tour Road and Parking (removed 2002)
Mine Tunnel Loop Trail
120
Union Picket Line Tracery
Union Picket Line Tracery
Surface Depression of Mine Tunnel
Entrance to the Mine Monument
Trail
100
110
Former Tour Road and Parking (removed 2002)
Trail
Poor Creek
Bridge

Cultural Landscape Report

Crater Battlefield
Petersburg National Battlefield

Petersburg, Virginia

Existing Conditions
Crater Detail

National Park Service
Olmsted Center for Landscape Preservation
www.nps.gov/oclp

SOURCES

1. Park GIS Files
2. City of Petersburg GIS Files
3. Ortho Imagery, Virginia Geographic Information Network, 2013

DRAWN BY

Tim Layton
AutoCAD and Illustrator CS6, 2017

LEGEND

- Building / Structure
- Forested Canopy
- Earthen Defenses
- Creek / Stream
- Paved Area
- Headwall
- Sidewalk / Trail / Footpath
- Cannon
- Monument / Marker
- Wayside
- Post & Rail Fence

NOTES

1. Projection: Virginia State Plane, South Zone, NAD 83 HARN, Feet
2. Contour Interval = 2'-0"
3. All features shown in approximate scale and location

0' 25' 50' 100'

Drawing 4

Analysis and Evaluation

This chapter provides an analysis of the historical significance of the Crater Battlefield landscape and an evaluation of its historic character based on the findings of the Site History and Existing Conditions chapters. The analysis and evaluation have been developed according to the *National Register Criteria for the Evaluation of Historic Properties* and the National Park Service's *A Guide to Cultural Landscape Reports: Contents, Process, and Techniques*. The first section of this chapter reviews the significance of the landscape presented in National Register documentation and evaluates the landscape's historic integrity. The second section evaluates the historic character of the Crater Battlefield landscape based on National Park Service cultural landscape report methodology, which organizes the landscape into characteristics and features. A narrative evaluation of landscape characteristics is first presented followed by a table containing an evaluated inventory of landscape features.

NATIONAL REGISTER EVALUATION

The National Park Service evaluates the historical significance of properties through a process of identification and evaluation defined by the National Register of Historic Places program. According to the National Register, historic significance may be present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association. A property can be found to have significance on a national, state, or local level, and must meet one or more of the following criteria to be considered eligible for the National Register: (A) association with events that have made a significant contribution to the broad patterns of our history; (B) association with the lives of persons significant in our past; (C) embody the distinctive characteristics of a type, period, or method of construction, that represents the work of a master, or possess high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; or (D) has yielded, or may yield, information important in pre-contact history or history.[1]

NATIONAL REGISTER DOCUMENTATION

Petersburg National Battlefield was administratively listed in the National Register of Historic Places on October 15, 1966 with the passage of the National Historic Preservation Act. No National Register documentation has been formally approved for the entire park. The Five Forks Battlefield was listed individually in

the National Register as a National Historic Landmark on December 19, 1960, and documentation for it was approved on July 2, 1975. The Appomattox Manor complex at City Point was listed individually in the National Register on October 1, 1969. Grant's Headquarters at City Point, a park management unit, is also located within the boundaries of the City Point National Register Historic District, listed on October 15, 1979. There is no individual listing for the Eastern Front unit or Crater Battlefield.[2] In December 2014, the park received draft documentation for the entire National Battlefield district prepared by the Public Archaeology Lab (PAL).

STATEMENT OF SIGNIFICANCE

The Petersburg National Battlefield district is eligible for listing in the National Register under Criteria A, B, C, and D. The district comprises 2,760 acres and consists of four park management units that include Grant's Headquarters at City Point, the Eastern Front (containing the Crater Battlefield), the Western Front, and the Five Forks Battlefield. The district derives its primary national significance under Criterion A in the area of Military from its association with the ten-month-long Petersburg Campaign, which culminated in the abandonment of Petersburg and Richmond by the Confederate Army of Northern Virginia by April 3, 1865, and led directly to the Army's surrender at Appomattox Court House one week later. The primary period of significance for the Civil War battlefield extends from the date of the initial construction of the Dimmock Line in late summer 1862 to the conclusion of the Petersburg Campaign on April 3, 1865.[3]

The Crater Battlefield is significant over the period 1864 to 1942 under National Register Criterion A in the areas of military history, ethnic heritage, commemoration, and conservation, Criterion B for the military association with Lieutenant General Ulysses S. Grant and General Robert E. Lee, Criterion C in the area of engineering, and Criterion D in the area of archeology (prehistoric, historic–aboriginal, and historic–non-aboriginal). For the Crater Battlefield landscape, these areas of significance relate principally to two historic contexts: the Civil War, and the commemoration, preservation, and establishment of the park landscape.

Criterion A – Military History

The Crater Battlefield is nationally significant under Criterion A in the area of Military History as the site of the July 30, 1864, Battle of the Crater. Starting on June 25, 1864, Union soldiers in the 48th Pennsylvania Volunteer Regiment began excavating a mine that would extend 511 feet to a point under Elliott's Salient, located on the Confederate defensive line. At 4:44 on the morning of July 30, nearly four tons of gunpowder exploded forming the Crater in the Confederate

line. The Union infantry attack following the explosion lacked effective leadership and was stymied by Confederate artillery fire. A Confederate counterattack led by Brigadier General William Mahone succeeded in closing the breach at the Crater. The presence of United States Colored Troops (USCT) on the battlefield brought a vitriolic racial hatred to the combat and soldiers on both sides killed unarmed or surrendering opponents.

Criterion A – Ethnic Heritage: Black

The Crater Battlefield is nationally significant under Criterion A in the areas of Military History and Ethnic Heritage: Black as the site of extensive United States Colored Troops (USCT) combat during the Civil War. Major General Ambrose Burnside selected USCT units in the 4th Division of the IX Corps to lead the attack following the explosion of the mine that imitated the Battle of the Crater. Fearing political repercussions should the assault fail, Major General George Meade ordered Burnside to alter his plan shortly before the attack, forcing unprepared and battle-weary white troops to take the lead instead of the USCTs who had trained for the mission. As a result, the black troops were forced to enter the battle in a second attack wave and, after some initial successes north and west of the Crater, retired in panic.[4]

Criterion A – Other: Commemoration

The Crater Battlefield is nationally significant under Criterion A in the area of Commemoration for association with the origin and evolution of the Civil War battlefield memorialization movement. The battlefield contains seven monuments consisting primarily of simple small stone markers with incised inscriptions. Consistent with national developments at other battlefields, veterans' groups from the North initiated the commemorative activities and installed the first monuments at the Crater Battlefield.[5]

Criterion A – Conservation

As a component of Petersburg National Battlefield, the Crater Battlefield is significant under Criterion A in the area of Conservation as one of several national military parks created during the period of increased nationalism and prosperity between the two World Wars. The establishment of the park in 1926 and development under the US War Department and later the National Park Service, contributed to the evolution of nationwide standards for battlefield preservation and interpretation. Between 1933, when all the country's national military parks were transferred from the War Department to the National Park Service, and 1942, the government completed much of the park development initially envisioned by the War Department, including the acquisition of substantial portions of the historic fortifications and the construction of several major roadways connecting the battle sites.[6]

Criterion B – Military: Lieutenant General Ulysses S. Grant

The Crater Battlefield is nationally significant for its association with Lieutenant General Ulysses S. Grant (1822–1885). Grant commanded all US forces from his headquarters at nearby City Point from March 1864. Although the Union plan to explode the mine was under the direction of Major General Ambrose A. Burnside of the IX Corps, who reported to Major General George G. Meade, commander of the Army of the Potomac, Grant was responsible for approving the plan and siding with Meade who made last minute changes to Burnside's plan. Grant was present on the field at the initiation of the battle and during its early phases.

Shortly after the explosion of the mine, Grant and staff rode to the front near the 14 Gun Battery [eventual Fort Morton] looking for Burnside. Grant and his aides left their horses and went forward, "across the railroad cut and the muddy banks of Taylor's Creek [Poor Creek] to the area just behind the front line."[7] From this vantage point, Grant had a closer view of the action than any other member of the Federal high command.[8]

Criterion B – Military: General Robert E. Lee

The Crater Battlefield is nationally significant under Criterion B for its association with General Robert E. Lee (1807–1870). Following the mine explosion, Lee stationed himself in the basement of the Gee House, immediately west of Jerusalem Plank Road, and observed and dispatched orders from there through the remainder of the battle.[9]

Criterion C – Engineering

The remains of the earthen fortifications and the Mine Tunnel at the Crater Battlefield are nationally significant under Criterion C in the area of Engineering. The earthworks were part of what was the most extensive network of opposing field fortifications constructed during the Civil War. Laid out by trained military engineers, they represent the most discernible feature of the battlefield and convey through their location, design, and setting the pivotal role that engineering played in determining battlefield strategy and, ultimately, the outcome of the Petersburg Campaign. The construction of the Federal mine that was used to create the breach in the Confederate lines in advance of the Battle of the Crater on July 30, 1864, was one of the most extraordinary feats of engineering performed during the war. The mine was conceived and constructed by professional coal miners and soldiers of the 48th Pennsylvania Volunteer Infantry Regiment under the supervision of mining engineer Lieutenant Colonel Henry Pleasants.[10]

Criterion D – Archeology: Prehistoric; Historic, Aboriginal; and Historic, Non-Aboriginal

The Crater Battlefield is nationally significant in the area of archeology for its potential to yield information about the organization, operation, and experiences of both the Union and Confederate armies. The Mine Tunnel Entrance and Crater sites are valuable as surviving physical remnants that provide important structural information unavailable through any other documentary sources about the construction and, perhaps more importantly, destruction of both features. The Taylor House Site and Kitchen Ruins is an archeological site associated with the Union occupation of private residences and at that site, a pre-contact assemblage dating to the Halifax phase of the Late Archaic period (3,500–2,000 BCE) has been recovered Additional archeological evidence of pre-contact settlement and activities at the Crater Battlefield is likely, however, specific investigations have been limited.[11]

EVALUATION OF LANDSCAPE INTEGRITY

Integrity is defined by the National Register of Historic Places as the ability of a property to convey its significance through physical resources. The National Register program identifies seven aspects of integrity: location, design, setting, materials, workmanship, feeling, and association. Retention of these qualities is necessary for a property to convey its significance, however, not all seven aspects must be present for a property to retain integrity. The following evaluation is based on an 1864–65 period of significance for the Civil War landscape and also on the period of significance for the commemoration, preservation, and establishment of the park landscape ending in 1942.

LOCATION

Location is the place where the cultural landscape was constructed or the landscape where the historic event occurred.

The Crater Battlefield contains the core of the Civil War battlefield but does not encompass all land historically associated with the 1864 battle and subsequent siege. The battlefield retains land acquired during the period of commemoration, preservation, and establishment of the park ending in 1942. In 1949, 206 acres of the Taylor Farm property officially transferred from the US Army to the park and additional land has been acquired east of Battery XVI and west of South Crater Road to buffer against contemporary development.

Evaluation: Retains integrity of location.

DESIGN

Design is the combination of elements that create form, plan, space, structure, and style of a cultural landscape.

Primarily in agricultural production before the battle, the Crater Battlefield was an open and expansive area where the placement of defensive lines, covered ways, and batteries, as well as the mine tunnel and its entrance, was determined by the Norfolk and Petersburg railroad (Norfolk Southern railroad), Poor Creek and its valley, Baxter Road, and Jerusalem Plank Road (South Crater Road). Integrity of design has been diminished by the growth of successional woody vegetation that has resulted in a pattern of forested and open space not present at the time of the battle or at the end of the park establishment period. Complete components and partial remnants of earthworks and batteries from the battle era remain and convey the defensive purpose of their design. The design of the historic park landscape is evidenced by the Eastern Front Tour Road between Fort Haskell and the Norfolk Southern railroad which was intended and constructed to have visitors follow the Union defensive line.

Evaluation: Retains integrity of design, however, diminished by the growth of successional woody vegetation

SETTING

Setting is the physical environment of the cultural landscape.

The setting of the Crater Battlefield within park boundaries has changed from the Civil War and park establishment periods due to the growth of successional woody vegetation. Residential and light commercial development outside the park, as well as generally heavy traffic along adjacent roads, has altered the larger cultural landscape setting.

Evaluation: Does not retain integrity of setting

MATERIALS

Materials are the physical elements that were combined or deposited during the particular period(s) of time and in a particular pattern or configuration to form the cultural landscape.

Extant above-ground built materials from the Civil War include earthen defensive lines, covered ways, and batteries. Although wood reinforcements and bracing documented in historic photographs are missing, the earthen structures still convey their military purpose. The Eastern Front Tour Road between Fort Haskell and the Norfolk Southern railroad retains a paved asphalt surface. Contemporary materials added since the end of the historic period are limited to interpretive

and directional signage, exposed aggregate concrete paving, and composite wood decking at the Mine Tunnel Entrance and on bridges along pedestrian trails. These non-historic materials are inconspicuous within the overall landscape.

Evaluation: Retains integrity of materials

WORKMANSHIP

Workmanship is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.

The Crater Battlefield retains Civil War-era workmanship in the surviving earthen defensive lines, covered ways, and batteries. The Crater, presently smaller than at the time of the explosion, illustrates the horrific destruction brought by detonating roughly four tons of gunpowder at the end of a 511-foot-long, hand-dug, mine tunnel. The battlefield retains commemorative-era workmanship in the stone work, bronze tablets, and sculptures of the early-twentieth century monuments.

Evaluation: Retains integrity of workmanship

FEELING

Feeling is a cultural landscape's expression of the aesthetic or historic sense of a particular period of time.

The feeling of a Civil War battlefield remains through the open fields, earthen defensive lines, covered ways, and batteries, the Mine Tunnel Entrance, and the Crater. The feeling of a commemorative and national park landscape remains through preservation early-twentieth century monuments around the Crater and at the Mine Tunnel Entrance, as well as the presence of the Eastern Front Tour Road between Fort Haskell and the Norfolk Southern railroad. The Crater Battlefield and adjacent lands are no longer open, agricultural landscapes resulting in a diminished historic feeling.

Evaluation: Retains integrity of feeling, however, diminished by the growth of successional woody vegetation

ASSOCIATION

Association is the direct link between an important historic event or person and a cultural landscape.

The Crater Battlefield remains associated with the Civil War through the earthen defensive lines, covered ways, and batteries, the Mine Tunnel Entrance, and the Crater within its boundaries. The landscape's present management as National

Battlefield in the National Park Service preserves and strengthens the association with the July 1864 battle and subsequent siege. The landscape also retains its association with the commemoration, preservation, and establishment of the park through the retention of monuments around the Crater and at the Mine Tunnel Entrance, as well as the Eastern Front Tour Road between Fort Haskell and the Norfolk Southern railroad.

Evaluation: Retains integrity of association

SUMMARY EVALUATION OF INTEGRITY

Overall, the Crater Battlefield retains integrity of location, materials, workmanship, and association with integrity of design and feeling also retained, but diminished by the growth and abundant presence of successional woody vegetation. The cultural landscape lacks integrity of setting due to successional woody vegetation and residential and light commercial development immediately adjacent to the park. The cultural landscape retains sufficient integrity to convey its historic association with the Civil War and with the commemoration, preservation, and establishment of the park landscape.

CULTURAL LANDSCAPE EVALUATION

This section evaluates the Crater Battlefield cultural landscape to provide a more detailed assessment of changes in historic landscape character. The evaluation is organized according to National Park Service cultural landscape methods that employ a framework of cultural landscape characteristics, including buildings and structures, archeological sites, circulation, natural systems and features, vegetation, views and vistas, and small-scale features. The evaluation assesses changes in historic character since the end of the Civil War (1864–65), and the end of commemoration, preservation, and establishment of the park landscape (1942). The contexts of the Civil War and park establishment, including commemoration, are derived from the draft National Register documentation for Petersburg National Battlefield.

Overall, the historic character of the Crater Battlefield consists of the battlefield landscape comprised of earthen defensive lines, covered ways, and batteries, open fields and meadows, circulation features, tactical views, and archaeological sites that remain from after the end of the Petersburg Campaign. The later commemorative additions, installed between 1905 and 1927, form a layer over the 1864–65 battlefield landscape.

An evaluated inventory of landscape features within the Crater Battlefield is provided in Table 1. For each landscape feature, the inventory table includes the

feature name, other inventory data (LCS, ASMIS, and FMSS), KOCOA category and side, evaluation status, a narrative description, and a thumbnail existing conditions reference photograph. Features are evaluated as contributing or non-contributing to the historic character of the landscape, or unevaluated if there is insufficient information. Non-existing features, for example Federal Battery XV, are not evaluated.

The evaluated inventory of landscape features incorporates concepts from the KOCOA method of Military Terrain Analysis endorsed by the American Battlefield Protection Program (ABPP) and recommended by the Virginia Department of Historic Resources (DHR) for the evaluation of historic battlefield environments. The modern military developed this method to analyze a potential battlefield landscape in an organized and systematic fashion. KOCOA is an acronym that represents **K**ey terrain, **O**bservation and fields of fire, **C**over and concealment, **O**bstacles (both natural and human-made), and **A**venues of approach. Although the acronym in its current form did not exist in the nineteenth century, the basic concept was used at the time of the Civil War and was taught at West Point.[12]

BUILDINGS AND STRUCTURES

Buildings are elements constructed primarily for sheltering a form of human activity in a landscape. Structures are elements constructed for functional purposes other than sheltering human activity in a landscape. Engineering systems are also structures.

Historic Condition (1864–1942)

Defensive earthworks and fortifications for both the Union and Confederates dominated the Crater Battlefield landscape. The configuration of these opposing defensive lines was dynamic, constantly changing during the course of the nine-month long siege. On June 18, 1864, Union forces established an advanced line west of Poor Creek on the Griffith farm. Supporting batteries were established on the Taylor farm east of Poor Creek. After the failure of the Crater offensive, Federal engineers shortened the line and established a continuous line of earthworks, forts, and batteries east of Poor Creek. The former advanced line was used as a picket line, approximately 225 feet east of the Confederate picket line, which the Confederates established after the July 30 battle.

The main Confederate line in this area, also oriented in a north-south direction, ran through the Griffith farm property and included Wright's Battery, Elliott's Salient backed by a Trench Cavalier, Davidson's Battery, and a labyrinth of connecting trenches and covered ways extending east to the picket line. Behind (west) of the main line, a secondary line east of Jerusalem Plank Road (South Crater Road) contained the Cornfield Battery. Union officers identified Elliott's

Salient, containing Pegram's Battery, as a weak point in the line and excavated the mine tunnel beneath it.

Residential buildings and structures at the time of the battle included the Gee House, west of Jerusalem Plank Road (South Crater Road), multiple buildings at the Griffith Farm, and the Taylor House, a separate kitchen, and likely other outbuildings supporting the property's agricultural use.

At the end of the Petersburg Campaign and conclusion of the Civil War, many of the earthworks and fortifications, such as Fort Morton, were plowed under and the land returned to agricultural use. The sites of Wright's and Davidson's Batteries were not included in property acquired for the park. In 1926, the Crater Battlefield Association built a clubhouse and 18-hole golf course on the Griffith farm property. The association also constructed a well house and garage in the vicinity of the clubhouse.

Post-Historic Condition (1942–Present)

After 1942, the park removed a post-Civil War home built on the Taylor Kitchen foundation and also removed the Crater Battlefield Association clubhouse, garage, and well house. The park has preserved earthen defensive structures and batteries under its management. During this period, successional woody vegetation expanded to cover more areas of the park, including earthworks and defensive features. In some instances, specifically at Battery XIII, storm events toppled large woody vegetation and resulted in damage to the earthen structures.

Evaluation

Overall, buildings and structures retain historic character. Successional woody vegetation covering historic earthen features is a major change since the end of the Civil War and the end of the park's establishment period. Contemporary structures for visitor services and remnants from the Crater Battlefield Association well house are inconspicuous.

ARCHEOLOGICAL SITES

Archeological sites are the ruins, traces, or deposited artifacts in a landscape, evidenced by the presence of either surface or subsurface features.

Historic Condition (1864–1942)

Civil War-era archeological sites within the Crater Battlefield include abandoned earthen defensive lines and batteries, building ruins, the Crater, the Mine Tunnel Entrance, Confederate Countermines, and burials. After the Civil War, many earthen features, including Fort Morton, were removed and the land returned

to agricultural use. Taylor family members built a new wood-frame home on the brick ruins of the farmstead's kitchen, and most human remains were reinterred. The park rebuilt the Mine Tunnel Entrance in 1938, and preserved the topographic depressions that mark the Crater and Confederate Countermines.

Post-Historic Condition (1942–Present)

In 1950, the park demolished the wood-frame structure at the Taylor Kitchen site and left the brick foundations and chimney intact. The park rebuilt the Mine Tunnel Entrance in 1967 and then completed another rebuilding project after a December 1997 fire burned 10 feet back into the tunnel. The park has completed multiple archeological investigations at the Crater, Mine Tunnel Entrance, Taylor Kitchen site, and Fort Morton.

Evaluation

Archeological sites retain historic character and convey the tactics of the mine operations and destruction of the mine explosion that initiated the battle. There are no known archeological sites in the Crater Battlefield associated with the commemorative and park development context.

CIRCULATION

Circulation includes the spaces, features, and applied material finishes that constitute the systems of movement in a landscape.

Historic Condition (1864–1942)

The placement of defensive lines, covered ways, and batteries was influenced by major battle-era circulation features, namely, the Norfolk and Petersburg railroad (Norfolk Southern railroad), Baxter Road, and Jerusalem Plank Road (South Crater Road). Confederate forces recognized Baxter Road and Jerusalem Plank Road as possible avenues of approach for Union troops seeking to capture Petersburg, and located their defensive line and batteries to secure these routes. In an identical fashion, Union forces formed their line and batteries to secure the Norfolk and Petersburg railroad and eliminate rail access and supplies to entrenched Confederates.

By the end of the historic period, work began on widening Baxter Road and the park Tour Road was present as two separate pieces. The first extended from Battery V to Battery XVI and connected with Baxter Road (County Drive), and the second headed east from Jerusalem Plank Road (South Crater Road) to the former Crater Battlefield Association's clubhouse.

Post-Historic Condition (1942–Present)

By the 1950s, the Virginia Department of Transportation had constructed a wider road south of Baxter Road and abandoned the battle-era route, presently identifiable in the landscape as a trace. In 1963, the park completed a bridge over the Norfolk & Western railroad (Norfolk Southern railroad) and connected the Tour Road from Battery V to South Crater Road. Portions of the Tour Road east of the bridge follow the historic alignment of Baxter Road. South Crater Road was expanded to a divided highway with two-lane traffic heading both north and south, and became part of the US Highway system. In addition to the name South Crater Road, the road is designated as US Route 301 and is part of a major highway that runs from Florida to Delaware. The Norfolk Southern railroad continues to serve as an active rail freight line (not owned by NPS).

Evaluation

Overall, circulation retains historic character for the Civil War and commemorative and park establishment contexts. Major features such as Baxter Road and Jerusalem Plank Road (South Crater Road) are widened and rerouted after 1942. Contemporary circulation features for visitor access and enjoyment do not detract from historic landscape character.

NATURAL SYSTEMS AND FEATURES

Natural systems and features are the natural aspects that have influenced the development and physical form of a landscape.

Historic Condition (1864–1942)

The defining natural system of the Crater Battlefield was Poor Creek and the valley cut by this meandering watercourse. Poor Creek determined the placement of the Union and Confederate defensive lines and the valley's west slope provided a concealed location for the 48th Pennsylvania Volunteer Regiment to begin the mine tunnel excavation. The creek and valley remained largely unchanged after the end of the war and through the end of the historic period.

Post-Historic Condition (1942–Present)

Changes associated with Poor Creek and its valley since 1942 are confined to vegetation along the creek's corridor and the side slopes of the valley. Successional woody vegetation grew unchecked in the valley and along the creek until the park completed two clearing projects to open the view between Fort Morton and the Crater. Due to steep slopes, vegetation along the creek is denser, taller, and contains many more woody species than the surrounding fields.

Evaluation

Natural systems and features retain historic character for the Civil War and commemorative and park establishment contexts. Non-historic, successional woody vegetation in the Poor Creek valley has been removed and presently emerging woody vegetation needs to be managed to preserve historic landscape character.

VEGETATION

Vegetation includes the deciduous and evergreen trees, shrubs, vines, ground covers, and herbaceous plants, and plant communities, whether indigenous or introduced in a landscape.

Historic Condition (1864–1942)

Prior to the battle and throughout the Petersburg Campaign, the Crater Battlefield consisted almost entirely of open fields in agricultural production. Pioneer corps for both Union and Confederate forces removed clusters of woody vegetation and individual trees to improve fields of fire and to provide materials for defensive lines and batteries. Period photographs record the absence of woody vegetation and period maps confirm the open character of the landscape only showing masses of woody vegetation east of the Union defensive line. Late-nineteenth and early-twentieth century photographs show clusters of pines and redcedars growing around the Mine Tunnel, Crater, and Trench Cavalier. These evergreen trees are more established by the end of the historic period and additional trees were planted or allowed to grow for the Crater Battlefield Association's golf course and clubhouse.

Post-Historic Condition (1942–Present)

Maintaining battle-era open, agricultural land became impractical for the park given the nation's personnel and budgetary focus on World War II. Successional woody vegetation grew across formerly open land with the park maintaining the areas around the Crater, Mine Tunnel, and Taylor Kitchen site as open turf. A clearing project in the late 1970s opened a narrow corridor between the Fort Morton site and the Crater and additional clearing completed around 2004, removed additional successional woody vegetation in the Poor Creek valley and along the Norfolk Southern railroad line.

Evaluation

Overall, vegetation does not retain historic character for the Civil War and commemorative and park establishment contexts. Although key areas around

the Crater, Mine Tunnel, and Taylor Kitchen site have remained as open turf, a large portion of the park that was open and in agricultural production during the battle and at the end of the historic period is now covered by successional woody vegetation.

VIEWS AND VISTAS

Views and vistas are the prospect created by a range of vision in a landscape, conferred by the composition of other landscape characteristics and associated features. Views are the expansive or panoramic prospect of a broad range of vision, which may be naturally occurring or deliberately contrived. Vistas are the controlled prospect of a discrete, linear range of vision, which is deliberately contrived.

Historic Condition (1864–1942)

In June 1864, Union and Confederate forces established defensive lines, artillery batteries, and picket lines on the Crater Battlefield. The land had been primarily in agricultural production, lacked large areas of woody vegetation, and afforded views for observing the enemy, directing troop movements, and firing artillery. The military and tactical importance of maintaining unobstructed views and fields of fire became less critical following the end of the Civil War. Agricultural use helped to maintain areas on the Crater Battlefield as open and preserved views, as did the development of the Crater Battlefield Association golf course. Pockets of woody vegetation developed at the Crater site, around the clubhouse, and to separate greens and tee boxes located in close proximity to each other. Overall, this resulted in the battle-era views remaining open.

Post-Historic Condition (1942–Present)

After 1942, an accelerated growth of successional woody vegetation encroached upon or completely obscured battle-era views. The park removed a narrow corridor of successional woody vegetation in 1978 and opened a vista between Fort Morton and the Crater. The park cleared a larger area of successional woody vegetation, after relocating the Crater parking area in 2004, and presently maintains an open view between Fort Morton and the Crater.

Evaluation

The majority of tactical views and fields of fire from the Civil War do not retain historic character due to the growth of successional woody vegetation. Additionally, the location of important Confederate artillery positions in the battle narrative, such as Wright's Battery, are located outside the park boundary complicating the preservation of historic views.

SMALL-SCALE FEATURES

Small-scale features are the elements providing detail and diversity for both functional needs and aesthetic concerns in a landscape.

Historic Condition (1864–1942)

Small-scale features from the Civil War were likely ephemeral, supported daily life behind a defensive line or in a fortification, and did not survive long after the war's conclusion. Multiple iterations of fence lines likely traversed the landscape after the Civil War to divided distinct fields and agricultural working areas. Fencing for agricultural use remained in place the longest at the Taylor property.

Between 1905 and 1927, veterans' groups and associations, such as the United Daughters of the Confederacy, installed seven monuments at the Crater Battlefield. The majority of these commemorative installations were located around the Crater. Prior to transferring ownership to the National Park Service in 1933, the War Department may have installed signage at the battlefield to identify features. In 1936, the National Park Service relocated the Massachusetts Monument from the park entry at South Crater Road and eliminated a stone plaza from that location that was part of the monument's original design.

Post-Historic Condition (1942–Present)

The park has preserved commemorative monuments and markers and in 1962, as part of establishing a one-way Tour Road, relocated the Massachusetts Monument to its present location. The Taylor farm property was officially transferred to the park in 1949, and after the time, the park likely removed the agricultural fencing. Contemporary small-scale features have been added to the landscape and are primarily designed to support park operations and interpretation. These include cannon at the Battery XIV site, at Fort Morton, and at the Crater, fences around the Crater and at the exit to South Crater Road, and directional and interpretive signage.

Evaluation

No small-scale features remain from the Civil War at the Crater Battlefield. Monuments installed during the early-twentieth century retain historic character for the commemorative and park establishment context. Contemporary small-scale features introduced by the park for operations and interpretation are inconspicuous.

ENDNOTES

1 United States Department of the Interior, National Park Service, Cultural Resources, *National Register Bulletin 16A: How to Complete the National Register Nomination Form* (Washington, DC: Government Printing Office, 1997).

2 Laura J. Kline et al., *National Register of Historic Places Registration Form for Petersburg National Battlefield* (Public Archaeology Laboratory, Draft, December 2014), Sect 7:5-6.

3 Ibid., Sect 8:64.

4 Ibid., Sect 8:107-108; Earl J. Hess, *Into the Crater: The Mine Attack at Petersburg* (Columbia: The University of South Carolina Press, 2010), 55-56.

5 Kline et al., *National Register of Historic Places*, Sect 8:115-116.

6 Ibid., Sect 8:119-120.

7 Richard Slotkin, *No Quarter: The Battle of the Crater, 1864* (New York: Random House, 2009), 206 and 210-211.

8 Kline et al., *National Register of Historic Places*, Sect 8:112-113.

9 Ibid., Sect 8:115; Hess, *Into the Crater*, 114-115.

10 Kline et al., *National Register of Historic Places*, Sect 8:136-137.

11 Ibid., Sect 8:146-148, 156, and 166.

12 Ibid., Sect 7:6-7.

TABLE 1: EVALUATED INVENTORY OF LANDSCAPE FEATURES

Feature Name	**Other Resource Inventory**	**FMSS Data** (Location / Asset records)	**KOCOA** (Category / Side)	**Evaluation Status**	**Evaluation Narrative** (Historic Period: 1864–1942)	**Existing Conditions Photo Reference**
Buildings and Structures						
Earthworks from Fort Haskell to Federal Battery XIII	LCS TBD ASMIS TBD	21995 /	Cover / Union Observation / Union	Contributing	**Context:** Civil War Beginning in June 1864, Union forces initiated construction of batteries and trenches east of the Confederate position known as the Harris Line. South of Fort Haskell, an earthwork consisting of a forward ditch (west facing) and parapet stretched for roughly 1,050 feet to Federal Battery XIII. The parapet remained throughout the Petersburg Campaign, survived post-Civil War agricultural activities, and is present today.	
Federal Battery XIII	LCS 006780 ASMIS PETE00017.000	21996 /	Cover / Union Observation / Union	Contributing	**Context:** Civil War Three-sided earthen battery open on the east side that provided the Union line with artillery support for their infantry positions and fortifications. The battery is 180 ft by 70 ft, with seven gun emplacements and embrasure openings, one bombproof, and several traverses. Erosion, heavy visitor use, weather, and vegetative growth have impacted the earthwork (NR 7:15).	
Federal Covered Way East of Federal Battery XIII	LCS TBD ASMIS TBD	TBD Consider adding record if park intends to actively maintain	Avenue of Approach / Union Cover / Union	Contributing	**Context:** Civil War Parapet and trench feature east of Federal Battery XIII and east of the park Tour Road. The feature can be seen on a LiDAR-generated hillshade and aligns with a Federal covered way shown on the 1865 Michler Map. The feature is approximately 515 feet long.	
Federal Battery XIV Tracery	ASMIS TBD	21809 / 1059882 FMSS record is for the tracery turf. Consider adding record for the crushed shell perimeter	Cover / Union Observation / Union	Contributing	**Context:** Civil War Earthen battery in place during the Battle of the Crater and documented on the 1865 Michler Map. Located south of Battery XIII, Battery XIV consisted of nine gun emplacements and embrasure openings oriented northwest toward Cemetery Hill. Post-Civil War farming removed the earthen structure of the battery and its location is presently marked and interpreted by a crushed shell tracery and two cannon. The Battery XIV site derives its contributing status from its archeological potential. Extensive geophysical survey and limited archeological excavation in the vicinity of Battery XIV have shown that Union trenches and other features, including extensive archeological deposits, remain extant below ground (NR 7:15).	

TABLE 1: EVALUATED INVENTORY OF LANDSCAPE FEATURES

Feature Name	**Other Resource Inventory**	**FMSS Data** (Location / Asset records)	**KOCOA** (Category / Side)	**Evaluation Status**	**Evaluation Narrative** (Historic Period: 1864–1942)	**Existing Conditions Photo Reference**
Fort Morton	ASMIS PETE00010.000	98452 /	Cover / Union Observation / Union	Contributing	**Context:** Civil War Union troops constructed Fort Morton south of Battery XVI between June and July 1864. Fort Morton was not enclosed at the time of the battle, but the parapet had the same configuration. The D-shaped fortification, entered from a covered way on its east side, served as the headquarters for General Burnside during the Battle of the Crater and is documented in 1865 photographs and the 1865 Michler Map. Following the war, the battery was plowed under and the area returned to farming. The full, battle-era extent of Fort Morton is presently concealed by successional woody vegetation on the southeast. The forward parapet of the battery is marked by a shell tracery and tall turf that is left unmown during the growing season. Behind the former parapet (west), the park has placed seven cannon. The Fort Morton site derives its contributing status from its archeological potential and extensive geophysical surveys have shown that Union trenches and other features, including extensive archeological deposits, remain extant below ground (NR 7:15)	
Federal Covered Way East of Fort Morton	LCS TBD ASMIS TBD	TBD Consider adding record if park intends to actively maintain	Avenue of Approach / Union Cover / Union	Contributing	**Context:** Civil War Parapet and trench feature east of the Fort Morton site and east of the park Tour Road. The feature can be seen on a LiDAR-generated hillshade and aligns with a Federal covered way shown on the 1865 Michler Map. In the vicinity of the current Tour Road, the covered way formed a zig-zag and entered the east side of Fort Morton. The feature is approximately 267 feet long.	
Federal Covered Way Further East of Fort Morton	LCS TBD ASMIS TBD	TBD Consider adding record if park intends to actively maintain	Avenue of Approach / Union Cover / Union	Contributing	**Context:** Civil War Parapet and trench feature east of the Fort Morton site and east of the park Tour Road. The feature can be seen on a LiDAR-generated hillshade and aligns with a Federal covered way shown on the 1865 Michler Map. The covered way consists of two legs that form an acute angle near the junction of the current Encampment Trail and Hickory Trail. The feature is approximately 983 feet long.	
Federal Battery XVI	LCS 081691 ASMIS PETE00064.000	22788 /	Cover / Union Observation / Union	Contributing	**Context:** Civil War A modified earthen redan with outer moat and high walls constructed south of Fort Morton to support infantry positions along the Union line close to Elliott's Salient. Battery XVI consolidated three batteries that were in place at the time of the Battle of the Crater. The construction of County Drive (US Route 460) partially destroyed the battery but the remaining portion, measuring approximately 150 ft long by 100 ft wide, retains above-ground integrity (NR 7:15-16).	

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Federal Bombproofs	LCS 081695 ASMIS PETE00052.000 PETE00053.000	22793 /	Cover / Union	Contributing	**Context:** Civil War In the project area, two bombproofs are located east of the earthworks connecting Fort Haskell and Battery XIII (a third is north of the project area and northeast of Fort Haskell). Presently the bombproofs are east of the Tour Road and measure roughly 24 feet square. Both have depressions in the center where the roofs have collapsed and show signs that the entry was on the south side (NR 7:15).	
Federal Zig Zag Trench	LCS 081690	22787 /	Avenue of Approach / Union Cover / Union	Contributing	**Context:** Civil War Located north of Federal Battery XVI the Zig Zag Trench served as a covered way and provided an avenue of approach for Union troops to safely reach the Poor Creek valley and then the forward Union Picket Line. The deeply dug trench has steep walls approximately 5 to 6 feet high and 5 to 8 feet wide. The Zig Zag Trench ran through open agricultural land during the battle and campaign and is presently covered by successional woody growth. Dozens of large deciduous trees, greater than 24-inches diameter at breast height, are growing from the trenches side slopes (NR 7:16).	
Union Picket Line Tracery	LCS 081692 ASMIS PETE00035.000	21810 / 1129219 FMSS record is for the tracery turf. Consider adding record for the remnant earthwork	Cover / Union	Contributing	**Context:** Civil War The Union picket line was the advanced Federal position on June 18, 1864, and the ground was held until the end of the siege. The picket line was marked by a defensive earthwork that ran in a roughly north-south orientation. Prior to the mine explosion, approximately 225 feet separated the Union and Confederate picket lines. After the war, much of the earthwork was lost and presently, the park marks the picket line with a crushed shell tracery. A turf swath between two shell bands is not mown during the growing season and the taller turf aids in interpreting the missing feature. A portion of the picket line earthwork, roughly 60 feet in length, may be present north of the mine tunnel and mine tunnel trail (NR 7:16).	

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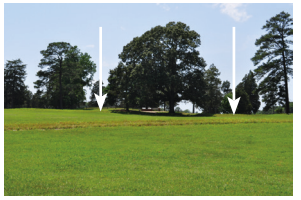
Confederate Picket Line	LCS 081693 ASMIS PETE00028.000	21810 / 1129225 FMSS record is for the tracery turf. Consider adding record for the earth-works north and south of the mine tunnel trail	Cover / Confederate	Contributing	**Context:** Civil War The Confederate picket line in front of Elliot's Salient was not established until after the battle, in September 1864. After losing eastern portions of the Dimmock Line, Confederate forces fell back to positions west of Poor Creek and constructed a new defensive line oriented in a north-south direction. East and roughly paralleling this line, Confederate infantry established a picket line less than 100 yards west of the Union picket line. Presently, about 320 feet of earthen parapet stand east of the Crater and measure roughly 4 feet wide by 3 feet high. The earthen parapet is divided by the mine tunnel trail. An additional 560 feet of the picket line is marked as a tracery with an inner and outer edge defined by crushed shell and an interior portion defined by unmown turf (NR 7:14-15).	
Elliott's Salient	LCS TBD ASMIS TBD	TBD Consider adding record only if parks has active, recurring maintenance on archeologi-cal resources	Cover / Confederate Observation / Confederate	Contributing	**Context:** Civil War Earthwork designed as a re-entrant salient, meaning that it curved inward, protecting Pegram's Battery and destroyed by the mine explosion on July 30, 1864. Remnants that survive are below ground and survive as archeological resources (NR 8:78).	
Confederate Trench Cavalier	LCS 081689 ASMIS PETE00036.000	22785 /	Cover / Confederate	Contributing	**Context:** Civil War West of Elliott's Salient, Confederate forces built a Trench Cavalier as a protective fallback position should the salient be captured. Under construction as early as June 29, 1864, portions of the Trench Cavalier were destroyed in the mine explosion and rebuilt after the Battle of the Crater. The Trench Cavalier is located along the west rim of the Crater and features steep slopes rising to form an earthwork between 8 to 10 feet high. The structure is roughly 5 feet wide, 300 feet long, and covered primarily by turf. Sixteen Eastern redcedars (*Juniperus virginiana*) are presently growing on the earthwork (NR 7:14).	
Comfort Station		115551 /	N/A	Non-Contributing	Contemporary, precast concrete structure set on 14 ft wide by 12 ft long concrete foundation. Two doors on the north facade lead to separate men and women's room with vault toilets.	

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Crater Battlefield Association golf course well house foundation		TBD No need for record if no active maintenance	N/A	Non-Contributing	**Context:** Commemoration, preservation, and establishment of park In 1926, the Crater Battlefield Association built a clubhouse and 18-hole golf course on the Griffith farm property. East of the clubhouse, a well house stood and is seen in a circa 1927 photograph. The park likely removed the well house after 1955 when they ceased to use the clubhouse as a visitor center.	
Archeological Sites						
The Crater	LCS 031215 ASMIS PETE00020.000	22743 /	Cover / Confederate	Contributing	**Context:** Civil War On July 30, 1864, Union forces detonated explosives set in a mine dug under the Confederate line on the Griffith farm property. The explosion resulted in a crater in the approximate range of 170 feet long, 60 feet wide, and 30 feet deep. Presently, the Crater is extant as a topographic depression and measures roughly 105 feet long, 60 feet wide, and 15 feet deep. Shell-marked traceries to the south and north of the depression indicate the battle-era extent of the landform. Visitors view the Crater from a perimeter walkway that circumscribes the depression and the Trench Cavalier to the west. A contemporary split-rail fence separates the pedestrian walk from the Crater (NR 7:16).	
Union Mine Tunnel Entrance	LCS 081688 ASMIS PETE00019.000	22770 /	Cover / Union	Contributing	**Context:** Civil War On June 25, 1864, Union troops under the direction of Lieutenant Colonel Henry Pleasants began construction of the Mine Tunnel Entrance east of the Union picket line. The entrance was started in the western slope of the Poor Creek valley to avoid digging a vertical shaft. The Mine Tunnel Entrance has been rebuilt in 1938, 1967, and most recently after a December 1997 fire burned 10 feet back into the tunnel. The present Mine Tunnel Entrance is reinforced with concrete sandbags retaining the surrounding grades and secured with a locked metal gate (NR 7:16, 8:78-79, 8:140).	
Confederate Counter Mines	LCS 081694 ASMIS PETE00025.000	22776 /	Observation / Confederate	Contributing	**Context:** Civil War Prior to the July 30, 1864 explosion, Confederates dug exploratory counter mines north of Elliott's Salient in an attempt to intercept the Union Mine Tunnel. These efforts failed to discover the Union Mine Tunnel that averaged between 16 and 20 feet below the surface. Presently, three pits roughly 8 to 10 feet in diameter exist north of the Crater and the pedestrian perimeter walk (NR 7:16, 8:79).	

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Taylor House Site and Kitchen Ruins	LCS 001214 ASMIS PETE00018.000	21847 /	Obstacle / Union	Contributing	**Context:** Civil War During the Petersburg Campaign, the Taylor House stood in the path of advancing Union troops and was overrun by the army on June 18, 1864. The house was burned by retreating Confederates, while associated outbuildings were pulled apart by the Federals. Remnants of the complex remained behind Union lines during the Battle of the Crater and through the end of the siege. After the war, William Byrd Taylor returned to the property and built a new house on the foundations of the former kitchen building. This wood-framed structure was demolished in 1950 with the brick foundations and chimney left intact. The park has subsequently completed several archeological investigations and in 2005, a stabilization project on the brick masonry (NR 8:156).	
Circulation						
Eastern Front Tour Road	LCS 081728	22461 /	N/A	Non-Contributing	**Context:** Commemoration, preservation, and establishment of park Construction of the Tour Road began in 1932 and continued piecemeal over the next decade as the federal government acquired land and funding. By 1942, a tour route consisted of three unconnected sections: a gravel roadway north of Route 36, a two-way road between Route 36 and County Drive, and an entrance road to the Crater site from South Crater Road (Jerusalem Plank Road). Mission 66 improvements to the park included the conversion of the two-way road to a one-way tour route and connecting the Crater site to the Route 36 entry via a bridge across the railroad line. In 2004, the park made further alterations to the road removing a parking spur near the Crater site and rerouting the road around the site of Fort Morton to enhance a battle-era view. Since the Tour Road in the Crater Battlefield project area differs markedly from its original alignment and lacks integrity to the early park development period, it is considered a non-contributing resource (NR 7:26).	
Norfolk and Petersburg Railroad	N/A	N/A	Obstacle / Union	Not evaluated Outside of park	One of five railroads completed and operational by 1858 that made Petersburg a prosperous transportation hub and connected the city to the surrounding region. Provided cover and concealment to Union forces and was also an obstacle during the Battle of the Crater. The present rail line is actively used for freight services.	

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Baxter Road Trace	LCS 081686	22768 /	Avenue of Approach / Both forces	Contributing	**Context:** Civil War Baxter Road branched off of Jerusalem Plank Road (presently South Crater Road) immediately south of the Gee House and headed southeast to Sussex County. On the 1863 map prepared by Jeremy Francis Gilmer, Confederate Chief of Engineers, the road is labeled Sussex Road and formed a southern boundary for the Griffith and Taylor farm properties. The route also appears on the 1865 Michler map and provided an avenue of approach for both forces during the battle. Between the 1930s and 1950s, the Virginia Department of Transportation rerouted and widened Baxter Road south of its battle-era location adjacent to the Griffith and Taylor farm properties. The widened route is presently identified as Winfield Road and merges into County Drive which more closely follows the battle-era alignment of Baxter Road toward Sussex County. A portion of Baxter Road's battle-era alignment survives beneath the present Tour Road. East and west of the Tour Road bridge over the Norfolk and Petersburg Railroad, Baxter Road is present as a trace with the former roadbed at a lower elevation than the surrounding grades. Both the east and west sections of the trace are in areas of successional woody vegetation.	
Equipment Road east of Poor Creek		TBD	N/A	Non-Contributing	The park maintains the area between Poor Creek and the railroad line via an informal earthen route that begins at the Tour Road east of Poor Creek. The road travels down an earthen embankment and through successional woods finally emerging in an open field east of the creek.	
Elliptical walk at Massachusetts Monument		22463 / TBD Consider adding asset record to the Massachusetts Monument monument location	N/A	Non-Contributing	The park completed an exposed aggregate concrete walk in 2010 that connects a vehicular pull-off on the Tour Road to the base of the monument.	

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Pedestrian Walks		45631 / (Crater Loop) 51215 / TBD (Crater Parking) 228082 / TBD (Fort Morton Parking) 45633 / (Mine Tunnel Loop) Consider adding record for walk to comfort station	N/A	Non-Contributing	Several hard-surfaced pedestrian walkways provide visitor access to and from parking areas, to the Crater and Mine Tunnel entrance, and to a visitor comfort station. Relatively short walkways parallel the parking areas at Fort Morton and the Crater. At the Crater parking area, the walkway connects to the Crater perimeter walk or loop and also the Mine Tunnel loop. All the walks are finished with exposed aggregate concrete or asphalt surfacing.	
Interpretive Trails		242845 / (Concealment Trail) 232661 / 1270657 (Fort Morton Access Trail) Consider adding record for Bell Trail and unnamed trail	N/A	Non-Contributing	Current park GIS categorizes a series of trails as Interpretive and in the project area, this includes the Concealment Trail, the Bell Trail, an unnamed trail, and the Fort Morton Access Trail. The Concealment Trail branches off of the paved Mine Tunnel Loop north of the Crater parking area. The trail heads east crossing Poor Creek and a tributary, proceeds north between Poor Creek and the railroad line, heads west crossing Poor Creek again, and finally heads south connecting with the Mine Tunnel Loop north of the Mine Tunnel entrance. The Bell Trail heads west from the Concealment Trail and forms a loop heading north and then south around the site of the Confederate picket line and defensive line. The Bell trail connects with an unnamed trail that extends north from the Crater perimeter walk. The Fort Morton Access Trail begins at the Fort Morton parking area walk and continues south and then southwest to the Fort Morton site. The park installed all three trails after the historic period to facilitate visitor access and enjoyment of the park. The trails are surfaced with a mixture of compacted earth, compacted aggregate, and compacted wood chips.	

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Multi-Use Trails		45749 / (Encampment Trail) 45750 / (Poor Creek Trail) 232238 / (Wilcox Trail)	N/A	Non-Contributing	Current park GIS categorizes a series of trails as Multi-Use and in the project area, this includes the Encampment Trail, Poor Creek Trail Exit, Poor Creek Trail, and Wilcox Trail. All trails are in the eastern portion of the project area east of the railroad line. The Encampment Trail begins south of the Tour Road near the Zig Zag Trench and follows the Baxter Road trace to the southeast. The trail turns to the north roughly paralleling the Tour Road and continues north beyond the project area toward Fort Stedman. The Poor Creek Trail Exit begins north of the Tour Road near the Zig Zag Trench and proceeds north staying to the west of the Fort Morton site and Taylor Kitchen Ruins. This trail joins the Poor Creek Trail at the transition between field and successional woody vegetation on the former Taylor property. The Poor Creek Trail heads east and then north, exiting the project area near Fort Haskell. A portion of the Wilcox Trail, connecting the Encampment and Taylor Creek Trails, is in the northeast section of the project area. The park installed all four trails after the historic period to facilitate visitor access and enjoyment of the park. The trails are surfaced with a mixture of compacted earth, compacted aggregate, and compacted wood chips.	
Hike/Bike Trails		TBD	N/A	Non-Contributing	Current park GIS categorizes a series of trails as Hike/Bike and in the project area, this includes the Hickory Trail. This trail is in the southeast portion of the project area and branches off of the Encampment Trail heading east towards the park's Resource Management buildings.	
Natural Systems and Features						
Poor Creek		N/A	Cover / Union Obstacle / Union	Contributing	Poor Creek cuts a valley between the Crater and the Norfolk and Petersburg railroad line. The creek turns northeast, passes under the railroad line, and exits the project area to the west of Fort Haskell. Poor Creek continues flowing north and empties into the Appomattox River. The creek valley provided cover during for the Union during the campaign, construction of the mine, and Battle of the Crater. The steep slopes and watercourse were also an obstacle during the battle.	

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Vegetation						
Fields and meadows		21809 / 1059878 21809 / 1059879 21810 / 1032103 21810 / 1059865 21810 / 1059867 22743 / 1059870 22462 / 1059907 22462 / 1059911 22462 / 1059912 FMSS records represent different levels of field and meadow management (turf management) in four maintained landscapes locations	Avenue of Approach / Both forces Observation / Both forces	Contributing	Both the 1863 Gilmer Map and 1865 Michler Map show that agricultural fields and open, non-forested areas dominated the landscape where the battle took place. The maps are confirmed by 1865 photographs from the Library of Congress recording a landscape nearly devoid of trees and woody vegetation. Following the Civil War, agricultural practices maintained fields and meadows as open areas. Successional woody vegetation encroached on the Griffith property during the Crater Battlefield Association's tenure and continued to reduce open fields and meadows in the former battlefield after World War II. Presently, the fields and meadows in project area are bordered on the north and south by the successional woods and reflect a fraction of the area that was open during the battle.	

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Successional woodlands		21809 / 1059879 (Fort Morton) 21810 / 1059865 (Crater & Mine Tunnel) 236128 / 1270873 (Crater Battlefield North) FMSS records are for fields, the desired future condition for some areas of the non-contributing successional woodlands	N/A	Non-Contributing	Based on the 1865 Michler Map, approximately 20% of the Crater Battlefield project area was wooded or forested at the end of the Petersburg Campaign. The Griffith and Taylor properties in the project area were primarily farm fields and many wooded areas were removed by both armies to open fields of fire and for raw materials to construct defensive works. Successional woodlands developed after the battle growing at varying rates since the end of maintained agriculture fields and also the closing of the Crater Battlefield Association golf course in the 1930s. Successional woodland growth accelerated with the start of World War II and materials and labor being focused on the war effort. Existing conditions mapping records that approximately 74% of the project area is presently wooded.	
Two mulberries (*Morus* sp.) near Taylor Kitchen Ruins		21809 / TBD Consider adding asset record to the Fort Morton maintained landscapes location if park conducts active, recurring maintenance	N/A	Non-Contributing	Two mulberries stand near the Taylor Kitchen Ruins, one to the east and the other to the west. Since Union forces burned the Taylor House around June 18, 1864, any individual trees in the vicinity of the homestead were likely removed as well to open up fields of fire. Any trees present between the conclusion of the Civil War and 1942 are associated with the residential development and use of the property and not commemorative and park development activities.	

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Sycamore (*Platanus* sp.) south of Taylor Kitchen Ruins		21809 / TBD Consider adding asset record to the Fort Morton maintained landscapes location if park conducts active, recurring maintenance	N/A	Non-Contributing	A 1937 aerial photograph shows an agricultural field south of the Taylor Kitchen. In this vicinity, the park completed a Mission 66 project and installed a visitor parking area of the Tour Road. Southwest of the park area, a massing of deciduous vegetation is seen in historic imagery. The current sycamore is likely a remnant of that massing and is not associated with commemorative and park development activities.	
Eastern redcedars (*Juniperus virginiana*) and deciduous tree growing over mine tunnel		21810 / 1032103 FMSS record is for turf needing maintenance to remove non-contributing vegetation	N/A	Non-Contributing	Union troops excavated the mine tunnel in an area devoid of vegetation that started behind the Union picket line and extended to under Elliott's Salient. A 1934 photograph and aerial imagery from 1937 show evergreen vegetation growing on and near the tunnel with denser growth concentrated near the Crater. One deciduous tree and two Eastern redcedars (*Juniperus virginiana*) are presently growing directly over the tunnel, closest to the mine entrance. The trees are not associated with commemorative and park development activities and threaten the long-term protection of the mine tunnel.	
Southern red oak (*Quercus falcata*) growing over mine tunnel		21810 / TBD Consider adding asset record to the Crater & Mine Tunnel maintained landscapes location	N/A	Non-Contributing; Manage as a Cultural Resource	**Context:** Commemoration, preservation, and establishment of park A large Southern red oak (*Quercus falcata*) is located south of the Crater east overlook and is growing over the mine tunnel. The oak has been nominated for "The Remarkable Trees of Virginia," a four-year crowdsourcing effort to document the states' largest, oldest, most historic, beautiful and beloved trees. The tree is not associated with commemorative and park development activities, however, it serves as an excellent indicator in the landscape to direct visitors towards the Crater.	
Eastern redcedars (*Juniperus virginiana*) around the Crater and on the Trench Cavalier		22743 / TBD Consider adding asset record to the Crater maintained landscapes location	N/A	Non-Contributing; Manage as a Cultural Resource	**Context:** Commemoration, preservation, and establishment of park Elliott's Salient and the Trench Cavalier were components of the Confederate line that ran through the Griffith farm property. At the time of the battle and throughout the siege, the salient, subsequent Crater, and Trench Cavalier lacked woody vegetation. An 1891 photograph shows the Crater speckled with young pine and Eastern redcedar trees. Evergreen trees continue to be present at and around the Crater and Trench Cavalier and are seen in a 1937 aerial and circa 1960 photograph. The Eastern redcedars are not associated with commemorative and park development activities but assist in the goal of creating a solemn setting around the Crater.	

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Views and Vistas						
View from Fort Morton to the Crater		21810 / 1059865 FMSS record is for a field needing maintenance to preserve the view	Observation / Union	Contributing	Fort Morton served as the headquarters for General Burnside during the Battle of the Crater and the fort's location on an elevated rise afforded views of the mine explosion and subsequent battle action. In 2004, the park completed successional woody vegetation clearing to reestablish the view between Fort Morton and the Crater. Presently, the view is open from the front (west) side of the fort. The rear (southeast) corner of the fort's location is in successional woody growth. Successional woody growth is present in the Poor Creek valley and along the railroad line, but currently this vegetation does not impact this view.	
View from Fort Morton to the USCT rallying point		236128 / 1270873 FMSS record is for a field needing maintenance to preserve the view	Observation / Union	Contributing	In the second wave of the Union attack after the mine explosion, USCT forces attained a position in the Confederate trenches north of the Crater before a Confederate counterattack by pushed them back. During the battle, a view existed from the headquarters at Fort Morton to the USCT position. Presently, the view is partially obscured by successional woody vegetation north of the Crater.	
Tactical view from the Cornfield Battery to the Crater		22462 / 1059911 FMSS record is for a field needing maintenance to preserve the view	Observation / Confederate	Contributing	The Cornfield Battery anchored a Confederate line that paralleled South Crater Road (Jerusalem Plank Road) and turned northeast to the covered way south of Blandford Cemetery. Artillery at Cornfield Battery played a critical role in blunting the Union's attack and advance toward Cemetery Hill after the mine explosion. The Cornfield Battery site is presently obscured by successional woody vegetation and limits the full extent of the tactical view.	
Tactical view from Wright's Battery to the Crater		N/A	Observation / Confederate	Not evaluated Outside of park	Located north of the Crater, the site of Wright's Battery is on property outside the park presently owned by People's Memorial Cemetery. Artillery at Wright's Battery played a critical role in blunting the Union's attack and advance toward Cemetery Hill after the mine explosion.	No Photo
Tactical view from Davidson's Battery to the Crater		N/A	Observation / Confederate	Not evaluated Outside of park	Located south of the Crater, the site of Davidson's Battery is on property outside the park presently owned by the Blue & Gray Mobile Home Park. Artillery at Davidson's Battery played a critical role in blunting the Union's attack and advance toward Cemetery Hill after the mine explosion.	No Photo

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Tactical view from artillery on South Crater Road (Jerusalem Plank Road) to the Crater		N/A	Observation / Confederate	Not evaluated Outside of park	Artillery on Jerusalem Plank Road, presently South Crater Road, played a critical role in blunting the Union's attack and advance toward Cemetery Hill after the mine explosion.	
Small-Scale Features						
Mahone's Brigade Monument	LCS 006808	21810 / 304426	N/A	Contributing	**Context:** Commemoration, preservation, and establishment of park The Petersburg Chapter of the United Daughters of the Confederacy installed the Mahone's Brigade Monument on the west side of the Crater in November 1910. The rough-cut granite monolith measures 30 inches long by 20 inches wide by 43 inches high with a polished, slightly slanted top. The top face bears an inscription denoting the position of Mahone's brigade during the battle. The monument is presently along the Crater perimeter walkway (NR 7:22).	
Mahone Monument	LCS 006807	22456 /	N/A	Contributing	**Context:** Commemoration, preservation, and establishment of park The Petersburg Chapter of the United Daughters of the Confederacy installed the Mahone Monument on the west side of the Crater and south of the Mahone's Brigade Monument in 1927. The monument consists of a 4-foot-square, granite-block obelisk that rises 24 feet from a stepped granite base. The obelisk is comprised of rusticated granite blocks that taper and terminate in a smooth-cut, pyramidal top. A smooth granite panel marks each face of the obelisk's first and largest course. The panel on the west face bears an inscription honoring William Mahone. The monument is presently along the Crater perimeter walkway (NR 7:22).	

TABLE 1: EVALUATED INVENTORY OF LANDSCAPE FEATURES

Feature Name	**Other Resource Inventory**	**FMSS Data** (Location / Asset records)	**KOCOA** (Category / Side)	**Evaluation Status**	**Evaluation Narrative** (Historic Period: 1864–1942)	**Existing Conditions Photo Reference**
Massachusetts Monument	LCS 006809	22463 /	N/A	Contributing	**Context:** Commemoration, preservation, and establishment of park The Commonwealth of Massachusetts installed the Massachusetts Monument east of South Crater Road in 1911 to honor all Massachusetts soldiers and sailors who died during the Civil War in various battles in Virginia. The monument stood within a plaza, roughly 56-feet square, designed to resemble a star-shaped fort. In 1939, the National Park Service relocated the monument into a grass panel dividing the entrance and exit lanes of the Tour Road and eliminated the plaza. The Park Service moved the monument again in April 1962, this time to its present location, as part of the Mission 66 changes to the park Tour Road. The monument consists of a granite base and two-part shaft topped by a bronze sculpture an eagle with its wings spread. The base is a stepped pedestal measuring 9 feet long by 5 feet wide by 5 feet high with MASSACHUSETTS inscribed on the north face. The 22-foot-high shaft tapers slightly upward and at its base, features bronze plaques on the north and south faces with inscriptions. The monument is presently accessed via a pedestrian elliptical walk that extends from a vehicular pull-off on the Tour Road.	
Pennsylvania Volunteers Heavy Artillery Monument	LCS 006805	21810 / 304396	N/A	Contributing	**Context:** Commemoration, preservation, and establishment of park Survivors of the Second Regiment of the Pennsylvania Veteran Volunteer Heavy Artillery installed a monument group west of the Trench Cavalier in October 1905. The monument group consists of a primary monument and right and left flank markers indicating the regiment's position during the battle. The primary monument is a rough-cut granite monolith, 24 inches square and 52 inches in high, that features a flat polished top bearing an inscription. The two flank markers are rough-cut granite with slope-cut faces measuring 12 inches square by 21 inches high. The right flank marker is north of the primary monument and the left flank marker is located to the south. The monument group is presently along the Crater perimeter walkway (NR 7:21).	
South Carolina Monument	LCS 006804	22453 /	N/A	Contributing	**Context:** Commemoration, preservation, and establishment of park The South Carolina Chapter of the United Daughters of the Confederacy installed the South Carolina Monument near the north Crater rim on November 26, 1924. The rough-cut granite base measures 60 inches long by 24 inches wide by 15 inches high. A vertical-set, rough-cut granite slab extends from the base and measures 48 inches long by 12 inches wide by 36 inches high. A bronze plaque, 30 by 22 inches, is attached to the north side of the slab and bears an inscription in raised letters. The monument is presently along the Crater perimeter walkway (NR 7:21).	

TABLE 1: EVALUATED INVENTORY OF LANDSCAPE FEATURES

Feature Name	**Other Resource Inventory**	**FMSS Data** (Location / Asset records)	**KOCOA** (Category / Side)	**Evaluation Status**	**Evaluation Narrative** (Historic Period: 1864–1942)	**Existing Conditions Photo Reference**
Entrance to Mine Monument	LCS 081687	21810 / 304448	N/A	Contributing	**Context:** Commemoration, preservation, and establishment of park Survivors of 48th Pennsylvania Veteran Volunteer Infantry installed the Entrance to Mine Monument south of the mine tunnel portal in 1907. The small, rough-cut, monolithic granite block measures 12 inches long by 13 inches wide by 15 inches high. The finished top face of the monument features an inscription. The National Park Service removed the monument in 1967 when it reconstructed the mine tunnel entrance. The monument was reset in the 1980s in its original position. The monument is presently along the mine tunnel loop walkway (NR 7:20).	
Crater of Mine Monument	LCS 006803	21810 / 304373	N/A	Contributing	**Context:** Commemoration, preservation, and establishment of park Survivors of the 48th Pennsylvania Veteran Volunteer Infantry installed the Crater of Mine Monument on the eastern rim of the Crater in 1907. The rough-cut monolithic shaft of granite measures 30 inches long by 18 inches wide by 51 inches high. The top of the shaft is cut on an angle and has a finished face with an incised inscription (NR 7:20)	
Commemorative Crater Monument	LCS 006806	21810 / 304402	N/A	Non-Contributing	**Context:** Commemoration, preservation, and establishment of park The Citizens of Petersburg installed the Commemorative Crater Monument, also known as the 100th Anniversary Marker, along the perimeter walk west of the Trench Cavalier on July 30, 1964. The monument consists of a small granite slab with an arched top set on a granite base. The base measures 3 feet long by 1 foot wide. The arched slab is 28 inches long by 6.5 inches wide by 34.5 inches high. The sides of the slab are rough cut, while the two faces are finished. The east face features an inscription with crossed Confederate and United States flags (NR 7:27).	
Federal Battery XIV Cannon		TBD / TBD TBD / TBD	N/A	Non-Contributing	The park has placed two cannon behind the former parapet of Battery XIV.	

TABLE 1: EVALUATED INVENTORY OF LANDSCAPE FEATURES

Feature Name	**Other Resource Inventory**	**FMSS Data** (Location / Asset records)	**KOCOA** (Category / Side)	**Evaluation Status**	**Evaluation Narrative** (Historic Period: 1864–1942)	**Existing Conditions Photo Reference**
Fort Morton Cannon		21809 / 1463321 21809 / 1463332 21809 / 1463336 21809 / 1463388 21809 / 1463400 21809 / 1463402 21809 / 1463403 Seven listed in FMSS. Were two moved to Battery XIV tracery?	N/A	Non-Contributing	The park has placed five cannon behind the former parapet of Fort Morton.	
Cannon at the Crater		21810 / 1463404 21810 / 1463405	N/A	Non-Contributing	Elliott's Salient protected artillery emplacements from Pegram's battalion prior to the mine explosion. Presently, the park has placed one cannon northwest of the Crater near the north end of the Trench Cavalier and one cannon south of the Crater near the perimeter walk.	
3-rail Post and Rail fence around Crater		45631 / 442562	N/A	Non-Contributing	Three-rail post and rail fence the park has installed along the inner edge of the Crater perimeter walk in order to keep visitors out of the Crater depression and the Confederate Trench Cavalier. Presently, several posts are rotting and should be replaced.	
Worm fence at Tour Road exit to South Crater Road		22462 / TBD Consider adding asset record to the Tour Road Exit maintained landscapes location	N/A	Non-Contributing	Four-rail contemporary worm fence installed at the Tour Road exit to South Crater Road. Approximately 90 linear feet of fence north of the exit and 43 linear feet south of the exit.	

TABLE 1: EVALUATED INVENTORY OF LANDSCAPE FEATURES

Feature Name	**Other Resource Inventory**	**FMSS Data** (Location / Asset records)	**KOCOA** (Category / Side)	**Evaluation Status**	**Evaluation Narrative** (Historic Period: 1864–1942)	**Existing Conditions Photo Reference**
Vehicular gate at Tour Road exit to South Crater Road		22461 / 403046	N/A	Non-Contributing	Contemporary two-leaf metal gate used to close access to the Tour Road.	
Wood stake troop markers (in successional woods north of Crater)		242845 / TBD Consider adding asset record to the Concealment Trail trails location	N/A	Non-Contributing	Two contemporary wood markers indicate the relative positions of Virginia and North Carolina (pictured) troops in the successional woods north of the Crater.	
Fort Morton directional sign		21809 / TBD Consider adding asset record to the Fort Morton maintained landscapes location	N/A	Non-Contributing	Two contemporary wood directional signs west of the Fort Morton parking area	
Federal Battery XVI sign		22788 / TBD Consider adding asset record to the Battery XVI fortification location	N/A	Undetermined	**Context:** Commemoration, preservation, and establishment of park Near the northeast end of the battery's parapet. Possibly installed prior to 1933 during the War Department's administration of the site.	
Union Tunnel sign		45633 / 442669	N/A	Undetermined	**Context:** Commemoration, preservation, and establishment of park Metal sign on round metal post located north of the Mine Tunnel and about 190 feet northeast of the Crater perimeter walk. Possibly installed prior to 1933 during the War Department's administration of the site. A similar type of sign is seen in a 1958 photograph (see Figure 53).	

TABLE 1: EVALUATED INVENTORY OF LANDSCAPE FEATURES

Feature Name	**Other Resource Inventory**	**FMSS Data** (Location / Asset records)	**KOCOA** (Category / Side)	**Evaluation Status**	**Evaluation Narrative** (Historic Period: 1864–1942)	**Existing Conditions Photo Reference**
Interpretative Waysides		240711 /	N/A	Non-Contributing	Fifteen interpretative waysides are installed in the Crater Battlefield project area.	

Treatment

This chapter presents a treatment strategy for the long-term preservation and management of the Crater Battlefield cultural landscape. Treatment is the collective set of actions taken within a cultural landscape intended to ensure the protection and preservation of the resources and characteristics that contribute to its historic character. Treatment guidance may range from broad guidelines and principles to specific tasks. The overall goal of treatment is to provide a basis for the sound stewardship of the cultural landscape as outlined in the *National Park Service Cultural Resource Management Guideline* (1997) and the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (1996).

The chapter is organized into two sections with the first section establishing a framework for treatment based on the National Park Service mission and policies, the park's enabling legislation, and current park planning efforts. This framework articulates a treatment philosophy that defines a primary treatment for the landscape, sets a treatment date as a benchmark for assessing historic character, and describes the intended character of the landscape. The second section describes landscape treatment tasks recommended for the Crater Battlefield landscape. The landscape treatment tasks are organized according to the landscape characteristics addressed. Graphically, each recommendation is keyed to the treatment plan drawing through application of a task code (SO – spatial organization, BL – buildings and structures, LU – land use, CR – circulation, VG – vegetation, and SSF – small-scale features) so that readers may conveniently navigate between narrative recommendations and plan drawings.

Each landscape treatment task narrative is presented consistently in the following order: (*a*) description of the issue or deficiency as well as the desired future condition; (*b*) directives expressed in park planning documents relating to the recommended task, and; (*c*) issues and considerations that must be considered prior to implementation. The treatment recommendations are based on findings of the site history, existing conditions, and analysis and evaluation chapters of this report. The recommendations were developed through discussion and collaboration with park staff and resource specialists and were refined during a treatment workshop conducted at the park in December 2016. The chapter concludes with a summary table of the treatment tasks (Table 2) and summary tables of treatment task work planning in the context of the park's facility management software system hierarchy (Tables 3 and 4).

TREATMENT FRAMEWORK

This section describes a philosophical foundation that provides context for the treatment recommendations included in this chapter. This section includes an overview of applicable regulations and policies, park enabling legislation, and current park planning.

NATIONAL PARK SERVICE REGULATIONS AND POLICIES

The treatment framework for the Crater Battlefield landscape is guided broadly by the mission of the National Park Service, defined in the Organic Act of 1916, "…to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations." The application of this mission to cultural landscapes is articulated in *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*, which in turn is interpreted within a hierarchy of National Park Service regulations and policies.

As a cultural resource, management of the Crater Battlefield landscape is defined by 36 Code of Federal Regulations: Parks Forests and Public Property, Part 2: Resource Protection, Public Use and Recreation (preservation of natural, cultural, and archeological resources). The application of these regulations to cultural landscapes is contained within *National Park Service Management Policies* (2006), *Director's Order 28: Cultural Resource Management*, and *NPS-28: Cultural Resource Management Guideline*.

Several management standards outlined in *NPS-28* provide a broad philosophical base for all four treatment approaches outlined in *The Secretary of the Interior's Standards* and are directly applicable to the Crater Battlefield landscape:

- Land use activities, whether historic or introduced, do not impair archeological resources.
- Uses addressing programmatic needs or park facilities within a cultural landscape, such as visitor centers, parking, interpretive structures, housing, administrative facilities, maintenance yards, and storage areas, are carefully considered in the context of the significance of the landscape.
- Use is monitored and regulated to minimize both immediate and long-term damage.
- Contemporary facilities do not adversely impact the landscape's physical and visual character. New facilities are compatible with the historic character and material of the landscape.
- Contemporary structures to facilitate access, such as ramps, railings, signs, and curb cuts, are designed and located to minimize adverse impacts on the character and features of a cultural landscape.

- Access to a cultural landscape that is vulnerable to damage from human use is limited, monitored, or controlled.
- All treatment and use decisions reflect consideration of effects on both the natural and built features of a cultural landscape and the dynamics inherent in natural processes and continued use.
- Use of destructive techniques, such as archeological excavation, is limited to providing sufficient information for research, interpretation, and management needs.
- All work that may affect cultural landscapes is evaluated by a historical landscape architect and other professionals, as appropriate.
- All modification, repair, or replacement of materials and features is preceded by sufficient study and recording to protect research and interpretive values.
- New work, materials, and replacement features are identified, documented, or permanently marked in an unobtrusive manner to distinguish them from original work, materials, and features.
- A proposed treatment project is initiated by the appropriate programming document, including a scope of work and cost estimate from a Cultural Landscape Report. Such projects include preservation maintenance as well as major treatment. No treatment is undertaken without an approved Cultural Landscape Report or work procedure specifying the work, and Section 106 compliance.
- A treatment project is directed by a historical landscape architect and performed by qualified technicians.
- Representative features salvaged from a cultural landscape are accessioned and cataloged, provided that they fall within the park's scope of collection statement.
- All changes made during treatment are graphically documented with drawings and photographs. Records of treatment are managed as archival materials by a curator or archivist within the park's museum collection.
- Work on historic structures, including modifications to improve drainage and access, does not harm the character-defining features of a cultural landscape.[1]

ENABLING LEGISLATION AND BOUNDARY ADJUSTMENT

On July 3, 1926, President Coolidge signed Public Law 69-467 establishing Petersburg National Military Park. In drafting the legislation, Congress specifically established the park "…in order to commemorate the campaign and siege and defense of Petersburg, Virginia, in 1864 and 1865 and to preserve for historical purposes the breastworks, earthworks, walls, or other defenses or shelters used by the armies therein…."[2] Based on an earlier Congressional study, the legislation envisioned the park as roughly 185 acres that the War Department would receive through donations. Neither the Griffith Farm property nor the Taylor Farm property is specifically identified in the legislation for acquisition.

Under the authority of the Emergency Relief Appropriation Act of 1935, President Franklin D. Roosevelt issued Executive Order 7329 on March 30, 1936, to acquire about 170 acres of the former Griffith Farm property. Referenced in the order as the "Crater property," acquiring the land was deemed necessary to "conduct Emergency Conservation Work activities thereon, such as moving and planting of trees, fire break maintenance, fire pre-suppression, seeding and sodding; construction of trails and buildings, restoration of historical earthworks, etc." Consistent with federal work-relief programs during the Roosevelt administration, the Executive Order also notes that "acquisition of such lands will provide employment for citizens of the United States who are unemployed."[3]

Thirteen years later, President Truman signed Public Law 81-293 authorizing the US Army to transfer the adjacent Taylor Farm property, comprising 206 acres on either side of the Park Tour Road, to the Department of the Interior. Congressional reports preceding the legislation indicate an informal agreement had been reached between the park and the Army for management of the former Taylor Farm and on October 29, 1949, the Army completed the transfer.

On August 24, 1962, Public Law 87-603 authorized acquisition of land at the site of the Battle of Five Forks, located in the Western Front and outside the Crater Battlefield area. The law also redesignated the park as Petersburg National Battlefield.

2004 GENERAL MANAGEMENT PLAN AND ENVIRONMENTAL IMPACT STATEMENT

In 2004, the National Park Service completed the *Petersburg National Battlefield Final General Management Plan and Abbreviated Final Environmental Impact Statement,* describing future desired resource conditions and visitor experiences. The plan defines geographical management units for the park's discontiguous tracts of land east, south, and west of the city, specifically, Grant's Headquarters at City Point, the Eastern Front, the Western Front, and the Five Forks Battlefield (Figure 72). In addition, the plan describes four management zones within the park that identify how the park will be managed to achieve desired resource conditions and to serve visitor needs. These zones include the Battlefield Preservation Zone, Battlefield Interpretive Zone, Historic Interpretive Zone, and Park Development Zone (Figure 73). The Crater Battlefield is within the Eastern Front unit and primarily the Battlefield Interpretive Zone. The easternmost section of the study area, north of Hickory Hill Road, is in the Battlefield Preservation Zone and the Park Tour Road corridor is within the Park Development Zone.[4]

The General Management Plan presents four different management alternatives, including an alternative making no changes from park management in 2004,

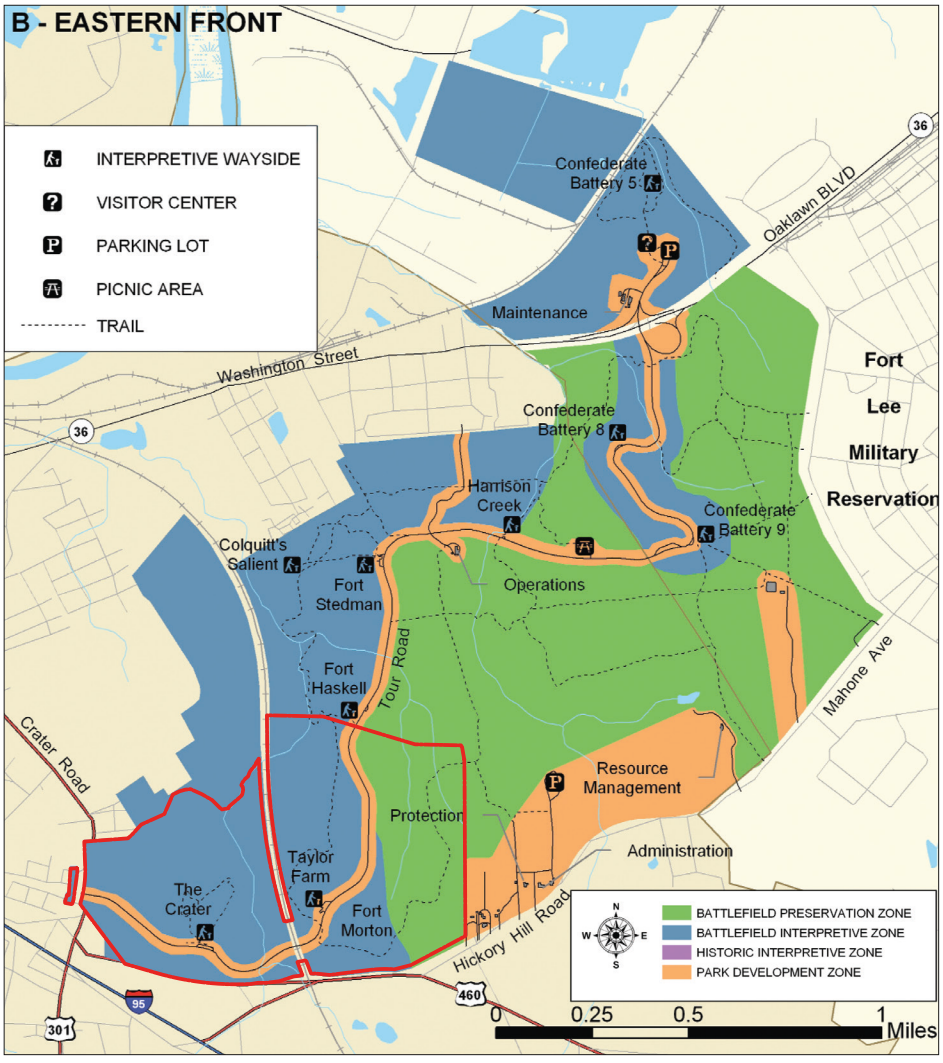


Figure 72 (top). Management units for Petersburg National Battlefield, 2004. The Crater Battlefield project area, shown in red, is within the Eastern Front Battlefield (*Petersburg National Battlefield Final General Management Plan and Abbreviated Final Environmental Impact Statement*).

Figure 73 (right). Management zones for the Eastern Battlefield unit, 2004. The Crater Battlefield project area, shown in red, is primarily in the Battlefield Interpretive Zone. In this zone, management decisions call for the rehabilitation of the 1864–65 landscape and its pattern of forested to open fields so visitors can understand the battle action (*Petersburg National Battlefield Final General Management Plan and Abbreviated Final Environmental Impact Statement*).

and incorporates public reviews and consultants with other federal, state, and municipal agencies. Based on this process the National Park Service selected the alternative, "The Landscape Tells the Stories" as the preferred alternative and developed actions that emphasize the cultural landscape as the mechanism by which all Civil War stories are told.[5] For the Battlefield Interpretive Zone, addressing the majority of the Crater Battlefield, specific actions include:

- The major battlefields that define the 1864/1865 landscape—the pattern of forested to open fields—are rehabilitated so visitors can be fully involved in understanding the actions of the battles.
- Movement through, and experience of the rehabilitated 1864/1865 landscape helps the visitor understand the various decisive battles that helped shape the campaign.[6]

2016 FOUNDATION DOCUMENT

In November 2016, the National Park Service issued the final Foundation Document for Petersburg National Battlefield. The process of preparing a foundation document aids park managers, staff, and the public in identifying and clearly stating in one document the essential information that is necessary for park management to consider when determining future planning efforts, outlining key planning issues, and protecting resources and values that are integral to park purpose and identity. The core components of a foundation document include the park's purpose, significance, fundamental resources and values, other important resources and values, and interpretive themes.[7]

The purpose statement for Petersburg National Battlefield summarizes that the park preserves the historic sites, structures, and landscapes where the Civil War campaign, siege, and defense of Petersburg took place, and fosters an understanding of these events, their causes, impacts, and legacy to individuals, the community, and the nation.[8] The document identifies seven significance statements that express why the park's resources and values are important and merit designation as a unit of the National Park Service:

1. Duration and area covered by the campaign, siege, and defense of Petersburg and subsequent evacuation of Richmond
2. Headquartering of Lt. General Grant at the Eppes Plantation, maintained by more than 100 enslaved people
3. Protection of surviving Union and Confederate trenches, breastworks, and earthen fortifications
4. Transformation of City Point from a small port town to the largest logistical support operation of the Civil War

5. Engagement of the United States Colored Troops (USCT) in more active combat than in any other campaign

6. Outlining the terms of surrender for Confederate forces by President Abraham Lincoln during his two-week stay at City Point

7. Establishment of Poplar Grove National Cemetery in 1866[9]

The Foundation Document next lists the park's fundamental resources and values and then the other important resources and values. Fundamental resources and values are determined to being essential to achieving the purpose of the park and maintaining its significance. At Petersburg National Battlefield, these include: the siege landscape, City Point, archeological resources, museum collections, Poplar Grove National Cemetery, and the solemnity of sites. Other important resources and values are defined as important in the operation and management of the park and warrant special consideration in park planning. At Petersburg National Battlefield, these include: Civil War monuments, appropriate recreation, and natural communities.[10]

Reiterating the themes identified in the 2004 *General Management Plan*, the Foundation Document enumerates the following interpretive themes for the park:

- A Young Nation in Transition
- Leadership of Commanders Grant and Lee
- Military Strategy, Logistics, and Tactics
- Role of African Americans
- Life During the Civil War
- The Last Full Measure: Poplar Grove National Cemetery[11]

TREATMENT PHILOSOPHY

Based on the treatment framework, a treatment philosophy articulates a guiding vision for the Crater Battlefield landscape, including a primary treatment approach, treatment reference date, and description of the intended landscape character. The treatment philosophy defines an overall goal of enhancing historic character and perpetuating those characteristics and features that convey historic significance based on the landscape's historic integrity, park policies and planning, natural and cultural resource protection, park operations, and other resource management issues.

PRIMARY TREATMENT

The recommended primary treatment for the Crater Battlefield landscape is rehabilitation, one of four treatments defined by the Secretary of the Interior

along with preservation, restoration, and reconstruction. Of the four treatments, the park's *General Management Plan* identified preservation and rehabilitation as the only levels of treatment that applied to the document's management prescriptions.[12] For the Crater Battlefield landscape, rehabilitation is selected as a primary treatment for its capacity to accommodate repair and replacement of deteriorated and missing historic features, while simultaneously accommodating compatible alterations and new additions to the historic property to facilitate its continued use as a unit of the national park system.

Rehabilitation is defined as, "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."[13] The Secretary of the Interior defines the following ten standards under rehabilitation:

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.

2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize the property will be avoided.

3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.

4. Changes to a property that have acquired historic significance in their own right shall be retained and preserved.

5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.

6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration required replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

7. Chemical or physical treatment, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

8. Archaeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

9. New additions, exterior alterations or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.[14]

Consistent with the *General Management Plan*, preservation is the recommended default treatment approach for circumstances where this report does not identify specific treatment tasks. Preservation, or "the act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property," will prevent the loss of historic materials and/or spatial relationships, and ensure that historic features are protected in place.[15]

TREATMENT DATE

Identification of a treatment date provides an objective and practical benchmark for managing historic landscape character. An appropriate treatment date may correspond to a time during the historic period when a landscape reached the height of its development or a time that best illustrates a property's significance and interpretive themes. An effective treatment date is not necessarily bound to the end-date of a property's period of significance.

Given the management prescriptions of the park's *General Management Plan* and the emphasis on the landscape telling the story of the ten-month-long Petersburg Campaign, a treatment date of 1864–65 will focus landscape treatment on the period of time associated with nationally significant events at the Crater Battlefield. In addition, the treatment date supports the preservation and management of the Siege Landscape, a fundamental resource identified in the Foundation Document.

The treatment date should include an overlay of commemorative features, primarily monuments and plaques, that were not present during the 1864–65 period. Late nineteenth- and early twentieth-century efforts to recognize individuals and units, culminating with the installation of the Mahone Monument in 1927, are identified as nationally significant in National Register documentation.[16] The Crater Battlefield treatment date of 1864–65 with this commemorative overlay would not fully reflect the conditions present during the Petersburg Campaign, but preserves and enhances the landscape's ability to convey its significance as a battlefield.

INTENDED LANDSCAPE CHARACTER

The Crater Battlefield Landscape will be carefully preserved, fostering improved understanding of the historic campaign, siege, and defense of Petersburg including the causes, impacts, and legacy of these events and themes to individuals, communities, and the nation. The role of landform in battlefield tactics will be conveyed through limited clearing of formerly open fields that have grown into woodlands after World War II. The rallying point of the United States Colored Troops (USCT) and the approach route of the Confederate counterattack, both central to the battle narrative, will be preserved and interpreted by clearing the

smallest practical area of second-growth woodlands. Long-term preservation of historic earthen structures and engineered slopes will be promoted by removing large diameter, non-historic trees that have been allowed to grow directly upon historic surfaces.

Broader understanding of the battlefield conditions will be fostered by marking the locations of important missing battlefield features with interpretive fixtures and exhibits designed for reversibility and elimination of impacts to archeological resources. Wider exploration of the battlefield will be supported through formalization of an existing network of foot trails. The landscape environs surrounding the Crater itself, including the Union mine entrance and the post-explosion Confederate trench cavalier, will support fundamental park values associated with "solemnity of sites"—including preservation of existing monumentation and markers, perpetuation of existing evergreen plantings of Eastern redcedar and small flowering trees—promoting here a setting of honor, inviting quiet reflection, and beckoning the memory of the tremendous sacrifice of life that occurred at this place.

TREATMENT TASKS

SPATIAL ORGANIZATION

SO-1: Clear non-historic, successional woodland growth to support visitor understanding of the Crater Battlefield (related task, VG-1 and VG-2)

The open landscape present during the 1864 battle, a landscape almost entirely free of forested area, is largely obscured today by non-historic, successional woodland growth (Figure 74). The historic pattern of open fields and forested areas influenced the outcome of the battle by defining avenues of approach and fields of fire. Visitors cannot fully understand and appreciate the importance of battle-era earthworks, the routes of the Union attack and Confederate counterattack after the mine explosion, and the prominent role of artillery during the battle due to current, non-historic, successional woodlands. Where practical to do so, the park should clear non-historic, successional woodlands to support visitor understanding of the Crater Battlefield (Figure 75).

Relationship to Park Planning

A major goal articulated in the *General Management Plan* is to rehabilitate the pattern of open fields and forested areas so visitors can understand the battle action.[17] Additionally, the park's Foundation Document lists the siege landscape as a fundamental resource and value. The extent of that landscape cannot be

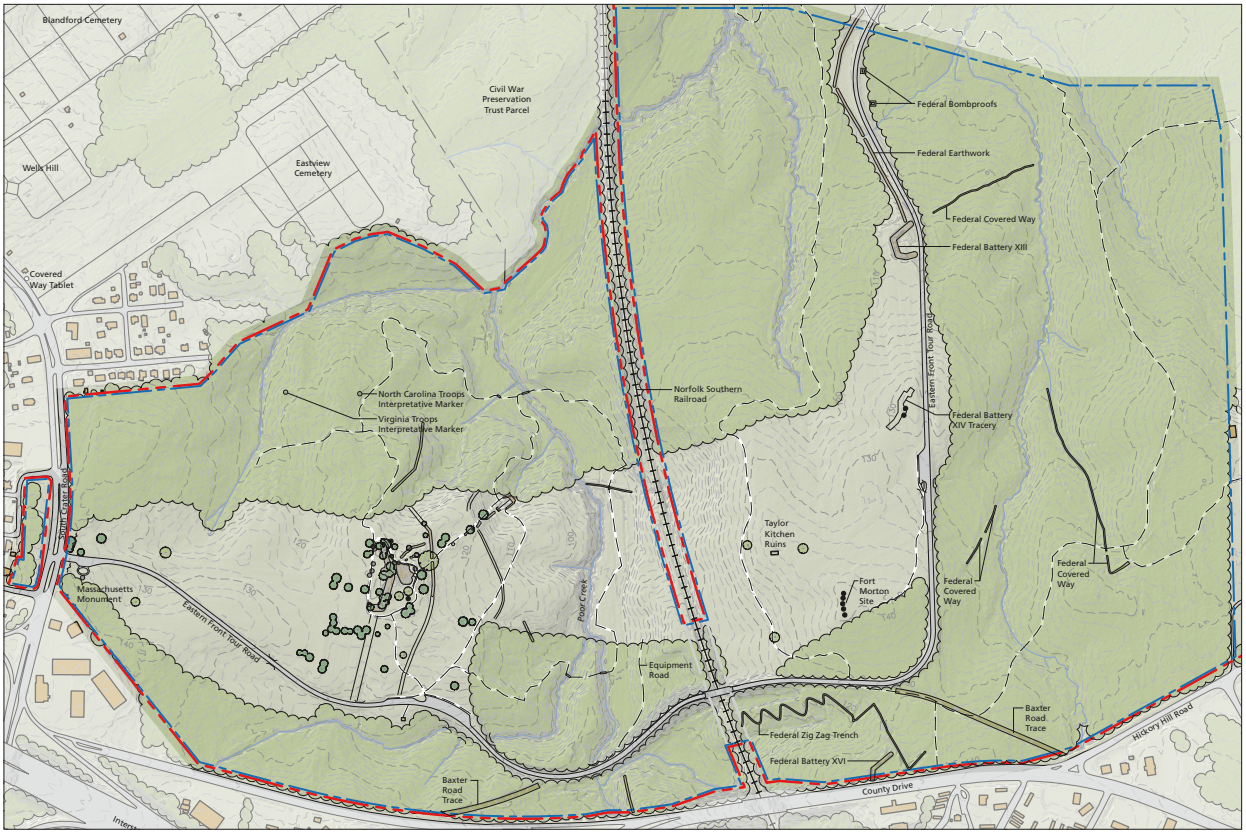


Figure 74. Non-historic, successional woodland growth to be cleared to support visitor understanding of the Crater Battlefield. Plan, 2016 (OCLP).

Figure 75. Cleared non-historic, successional woodland growth to support visitor understanding of the Crater Battlefield. Plan, 2016 (OCLP).

fully understood, interpreted, and appreciated presently covered by successional woody growth. The *General Management Plan* calls for both the rehabilitation of the 1864/1865 pattern of open fields and forests, as well as helping visitors understand decisive battle action that helped shape the Petersburg Campaign.[18]

Treatment Considerations

The proposed clearing area depicted on the treatment plan was informed by park research of troop positions during the battle, a slope analysis of LiDAR data collected in 2013, and matching the 1865–67 Michler map of the battlefield to the 2013 LiDAR data (Figures 76, 77, and 78). The proposed clearing consists of four separate areas within the Crater Battlefield project area that total 22.22 acres. From west to east the specific areas include 19.89 acres north of the Crater, 0.12 acres northeast of the Crater parking area, 0.46 acres southwest of Poor Creek, and 1.75 acres at the site of Fort Morton (see Figure 73).

The proposed 22.22-acre clearing will be partially offset by releasing 3.15 acres to succession south of the Park Tour Road. This offset will result in a net cleared area of 19.07 acres. For additional information on the area released to succession south of the Park Tour Road, please see task VG-6.

The proposed area north of the Crater includes clearing portions of a Confederate battery, a drainage valley and field used as Confederate avenues of approach, Confederate earthworks attacked by Union USCT forces, and Union avenues of approach used by IX, X, and XVIII Corps troops. The proposed clearing north of the Crater involves intermittent stream and drainage corridors as well as existing slopes that will make routine mowing difficult. The stream corridors and steeper slopes should be vegetated with an infrequently-maintained, thicket-type vegetation, detailed in task VG-2.

Northeast of the Crater parking area, a small section of non-historic woody vegetation should be removed to improve the tactical view between Fort Morton and the Crater (Figure 79). Southwest of Poor Creek, a slightly larger portion of non-historic woods should be removed to denote the area where Union brigades in the IX Corps gathered prior to the initial assault on the Crater. At the site of Fort Morton, additional clearing south of the currently open area should be completed to reveal the full, historic footprint of a major Union fortification that provided critical support functions and served as headquarters for General Burnside during the mine explosion and battle. East of Fort Morton and the Park Tour Road, the present forested area should remain in woods matching the character documented on the 1865–67 Michler map and in historic photographs (see Figure 78).

Removal of non-historic, successional woody vegetation can be completed in phases as necessitated by funding. Prior to commencing the work, best

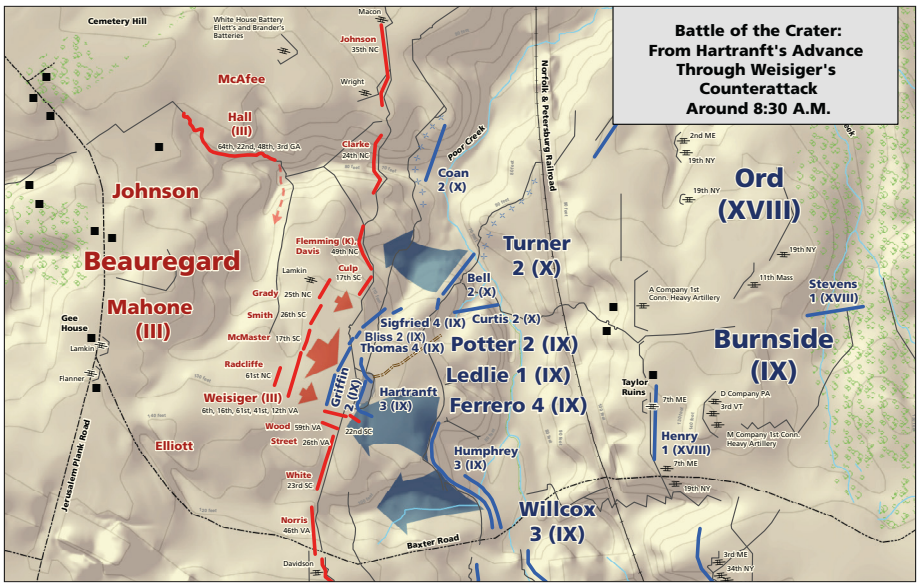


Figure 76. Park research of troop positions during the battle. Plan (PETE).

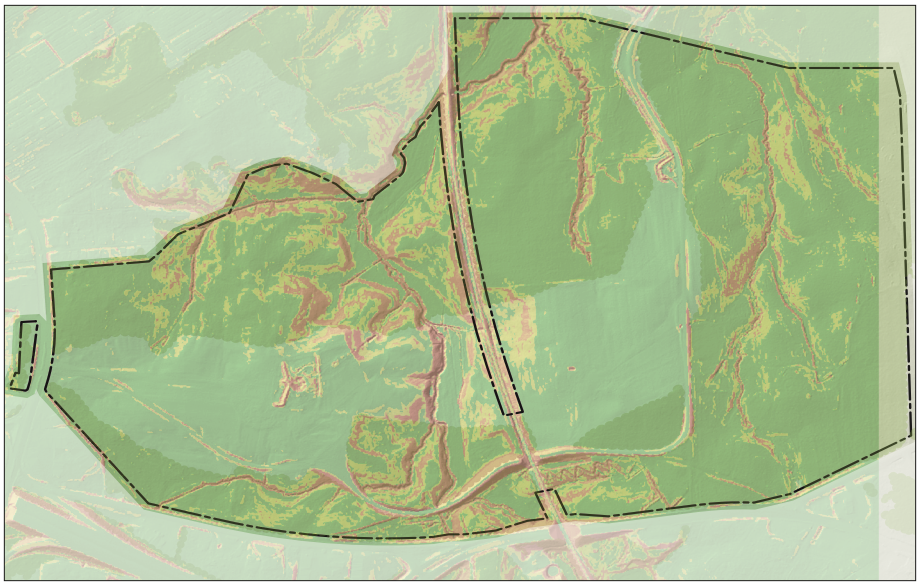


Figure 77. Slope analysis of LiDAR data collected in 2013. The analysis color codes slopes less than 10 percent as green, between 10 and 15 percent as yellow, and greater than 15 percent as red. Plan, 2016 (OCLP).

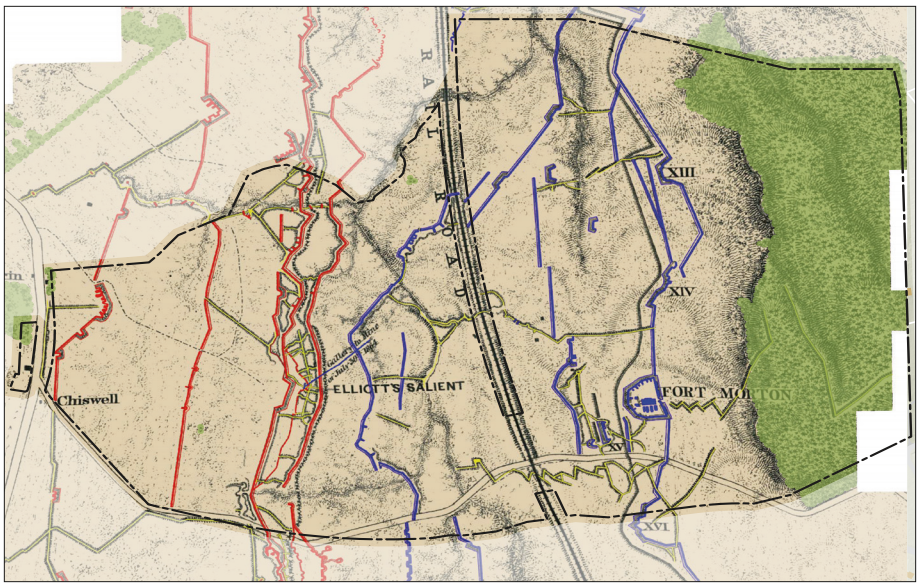


Figure 78. 1865–67 Michler Map of the battlefield matched to 2013 LiDAR data. Woody vegetation depicted on the 1865–67 plan has been highlighted green. Plan, 2016 (OCLP).

Figure 79. Non-historic woody vegetation to be removed (gray shading) to improve the tactical view between Fort Morton and the Crater. View east, 2016 (OCLP).

management practices should be implemented to limit erosion and surface runoff to Poor Creek.

The proposed clearing does not increase impervious surfaces nor does it promote point sources of pollution in the park, both major factors in maintaining water and soil quality. Archeological review, compliance, and monitoring are necessary prior to and during the clearing work. After the woody material has been removed from the site, a seed mixture containing fast-growing, annual herbaceous material and warm season native grasses and forbs should be planted. Steep slopes should be reinforced with an erosion control blanket after seeding.

BUILDINGS AND STRUCTURES

BL-1: Preserve battle-era earthworks and defensive and circulation features through vegetation management

Description

Several battle-era earthworks, defensive features, and circulation features have non-historic woody vegetation growing directly on them. Specific examples include the Union Zig-Zag Trench, Union Battery XVI, and Baxter Road trace. These features are at risk for damage due to the trees being thrown or toppled in a storm event. The park should remove all deciduous trees greater than 6-inches diameter at breast height growing on historic earthworks and defensive and circulation features (Figure 80).

Figure 80. Preserved battle-era earthwork through vegetation management, specifically removals denoted by gray shading. View looking at the Union Zig-Zag Trench, 2015 (OCLP).

Relationship to Park Planning

Park planning documents reference the battlefield's enabling legislation that in 1926, stated a purpose for the park's establishment was "to preserve for historical purposes the breastworks, earthworks, walls, or other defenses or shelters used by the armies" during the Petersburg campaign.[19] Based on this legislative mandate, the park's Foundation Document lists the Siege Landscape as a fundamental resource and includes the trenches, earthworks, and batteries as components of that landscape.[20]

Treatment Considerations

Large deciduous trees present the greatest risk for being thrown or toppled during a storm event. The park witnessed such damage in 1998 at Battery XIII (Figure

Figure 81. Large deciduous trees growing on an earthwork and toppled during a storm event. View looking northeast at Battery XIII, 1998 (PETE).

81). Additionally, both hurricanes Isabel and Irene (2003, 2011) did notable damage to the park's earthworks. As a guide for treatment implementation, all deciduous trees greater than 6-inches diameter at breast height growing on historic earthworks and defensive and circulation features should be removed. The trees should be cut as flush to ground level as possible and the cut stumps should be treated with a triclopyr herbicide to prevent resprouting. Small deciduous and evergreen material, and low native groundcovers, such as Virginia creeper (*Parthenocissus quinquefolia*), should be left in place to limit potential erosion. The accumulated leaf litter and duff layer should also remain to protect the features.

BL-2: Relocate Gowen Monument to mark location of Union Fort Morton

Description

The Gowen Monument presently stands in a small, outlying park parcel completely surrounded by major roads and dense commercial development. This setting could never have been imagined or conceived by the veterans who installed the monument and at best presents a risk to preserving and maintaining the resource. At worst, the setting is inappropriate to commemorate the sacrifices of the 48th Regiment Pennsylvania Volunteer Infantry and Colonel George W. Gowen (Figure 82).

The park should relocate the Gowen Monument to provide an appropriate setting for a commemorative resource. An ideal location for the monument would be at the former site of Fort Morton where leadership of the 48th Regiment oversaw the unit's construction of the mine tunnel and involvement in the battle following the explosion. The monument would aid visitors in location, referencing, and understanding the position and importance of Fort Morton in the Crater battle narrative and siege that continued through April 1865 (Figure 83).

Relationship to Park Planning

The park's Foundation Document recognizes Civil War monuments, including the Gowen Monument, as other important resources and values that are not fundamental to the park, but that warrant special consideration in park planning. The document notes that the majority of the park's memorials and commemorative markers are located in and around the Battle of the Crater landscape, as this event was one of the most dramatic and recognizable moments of the entire Petersburg campaign.[21] Relocating the Gowen Monument to mark the relative location of Fort Morton would be consistent with the majority of the park's monumentation and provide better protection and preservation for the monument.

Figure 82 (right). Gowen Monument to be relocated to mark the location of Union Fort Morton. View southeast, 2016 (*Foundation Document*).

Figure 83 (bottom). Photo-simulation of relocated Gowen Monument to mark the relative location of Union Fort Morton. View east, 2017 (OCLP).

Treatment Considerations

Survivors of the 48th Regiment Pennsylvania Veteran Volunteer Infantry installed the Gowen Monument on June 20, 1907. The monument occupies a 36-foot-square concrete pad on a small plot of grass at the intersection of South Crater Road and Sycamore Street (Route 301A), in the city of Petersburg, near the site of Confederate Fort Mahone.[22] In its present location, the Gowen Monument has no context or association with the Petersburg campaign and is threatened by vehicular traffic and vandalism. A jack-knifed tractor trailer accident, similar to one that struck a power pole in 2016 near South Crater Road and East Wythe Street, could irreversibly damage the monument. A more mundane but likely more frequent threat is from cars parking at the Merchant's Tire and Auto Center accidentally driving off the parking area and into the monument. The bronze bas relief depicting soldiers from the 48th loading black powder into the mine has been graffitied (Figure 84). There have been instances at National Park Service properties of vandals removing bronze plaques and medallions from monuments in exchange for the cash value of the metal. Relocating the monument to the site of Fort Morton provides a more appropriate setting, provides better protection of the resource, and serves to highlight the location of a missing earthen fort. The outlying parcel could be part of a land exchange to protect another threatened area or could be repurposed to more effectively publicize and promote Petersburg National Battlefield in a highly visible, commercial location.

Figure 84. Close inspection of this bronze bas relief reveals widespread graffiti to the artwork. View northeast, 2016 (OCLP).

Relocating the Gowen Monument is potentially controversial. If the park elects to move forward with this recommendation, the park will need to engage stakeholders and complete required reviews and compliance procedures.

LAND USE

LU-1: Support NPS landscape preservation of the "Flagship Inn" parcels abutting park

Description

The southwest boundary of the Crater Battlefield abuts two commercial developments bordered by US Highways. The northern development, closest to the Park Tour Road exit onto South Crater Road, is a 7-Eleven convenience store and gas station. The southern development is the Flagship Inn, an independently-run motel. The Flagship Inn appears to have a consistently low occupancy rate and the park has expressed concern about illicit activities associated with the establishment. In addition, the property's close proximity to US Highways and Interstate 95 makes it prime real estate for redevelopment. The current

Figure 85. Flagship Inn parcels abutting park to be preserved through fee simple acquisition, sympathetic third-party purchase, or protective easements (Google Earth).

establishment is not sympathetic or appropriate abutting the Crater Battlefield (Figure 85). Additionally, any future redevelopment may not be sympathetic or appropriate immediately next to the park. The park should work to preserve the Flagship Inn parcels through fee simple acquisition, sympathetic third-party purchase, or protective easements.

Relationship to Park Planning

The park recently acquire parcel 01-150, at 745 Winfield Road, through exchange with the Commonwealth of Virginia. This 0.85-acre parcel is immediately east of the Flagship Inn development and south of the park boundary. Acquiring this parcel supports preservation of the Crater Battlefield and its setting by removing unknown and inappropriate development from future consideration. Preservation measures for the Flagship Inn development would protect remnants and potential archeological resources of the battle-era Baxter Road alignment. The road followed the present property boundary between the park and Flagship Inn.

Treatment Considerations

The Flagship Inn development consists of two adjoining parcels. The northernmost parcel is 827 South Crater Road, a 3.45-acre lot containing three motel buildings and parking, and immediately south, 815 South Crater Road, a 0.66-acre parcel containing a banquet-hosting building and additional parking.[23] The development is bounded on the north by the 7-Eleven, on the east by the park, on the south by Winfield Road (US Route Business 460), and on the west by South Crater Road (US Route Business 301). On-ramps and off-ramps for Interstate 95 join South Crater Road adjacent to the motel development.

Both parcels are in the City of Petersburg and zoned for B-2, General Commercial District. This zoning designation sets a maximum building height of three stories or 45 feet which would limit a large visual intrusion immediately adjacent to the park. However, the zoning classification permits a variety of uses that may not be sympathetic to the resources and values of the park including: amusement place in an enclosed building, athletic field or baseball field, bottling works, dyeing and cleaning works or laundry, plumbing and heating shop, painting shop, upholstering shop, tinsmithing shop, tire sales and service, appliance repair shop, bowling alley or billiard parlor, hotel, motel, and motor hotel containing forty-five or more units, outdoor advertising structure or sign less than 100 square feet in area, bus terminal, printing, publishing, and engraving business, child care center, or private nursery school.[24] Additionally, a variety of uses are allowed in the B-2 zone with a special use permit including: nightclub, stand-alone used vehicle sales, stand-alone vehicle repair, service station, boat, semi-trailer truck, or recreational vehicle dealerships, mini-storage facilities or self-storage facilities, and private jails, halfway houses, or private prisons. Building heights and massings, as well as parking requirements, are not likely to change dramatically from the present Flagship Inn configuration. The potential for a variety of inappropriate uses and future development, as well as the lack of upkeep and occupancy presently at the Flagship Inn, are causes for concern. Fee-simple purchase or purchase by a sympathetic third-party would alleviate these concerns. The park could explore protective easements or covenants if the property is purchased by a third party.

CIRCULATION

CR-1: Rebuild Crater east overlook

Description

The perimeter walk around the Crater and trench cavalier widens on its eastern side where the walkway paralleling the mine tunnel joins the perimeter walk. This widened east overlook provides an opportunity for multiple visitors to gather, view interpretive waysides, and contemplate the 1864 battle while viewing the Crater depression. When visitors reach the east overlook from the mine tunnel walk, they immediately encounter waysides set into a large brick base. Beyond the waysides, a contemporary post and rail wood fence separates the overlook and circulation route from the Crater. A single bench is provided but is set at an awkward angle for viewing the Crater (Figure 86). The park should rebuild the east overlook to focus on the Crater landscape and provide additional seating. Related tasks, SSF-1: Replace failing post and rail fence with rope stakes and SSF-2: Remove brick pedestals and install NPS "low-profile" interpretive waysides, will complete an east overlook focused on the landscape that encourages contemplation and quiet reflection (Figure 87).

Relationship to Park Planning

The *General Management Plan* emphasizes the importance of the landscape and an interpretive experience free of modern intrusions.[25] Redesigning the east Crater overlook reinforces the importance of the landform—the Crater depression—while including interpretive media and visitor amenities as secondary, but important components in a comprehensive design.

Treatment Considerations

Removing the present brick base and waysides, detailed in task SSF-2, will allow visitors to travel on the mine tunnel walk and arrive at the east overlook with an unobstructed view of the Crater. New seating areas should be added recessed from the main walking and gathering area and angled roughly to the west to provide views to the Crater depression. The seating areas should be slightly elongated to provide a paved area for wheelchair access. The reinstalled waysides, using the NPS low-profile design, should be positioned to allow views from the mine tunnel walk and the seating areas. The proposed paving design will require removing approximately 185 square feet of existing paving and replacing it with turf. New paving necessitated for the design, approximately 204 square feet, should match the existing stone sizes and colors seen in perimeter walk's exposed aggregate concrete paving. Excavation and base preparation for the new paving and footings for new seating will require the review of an archeologist.

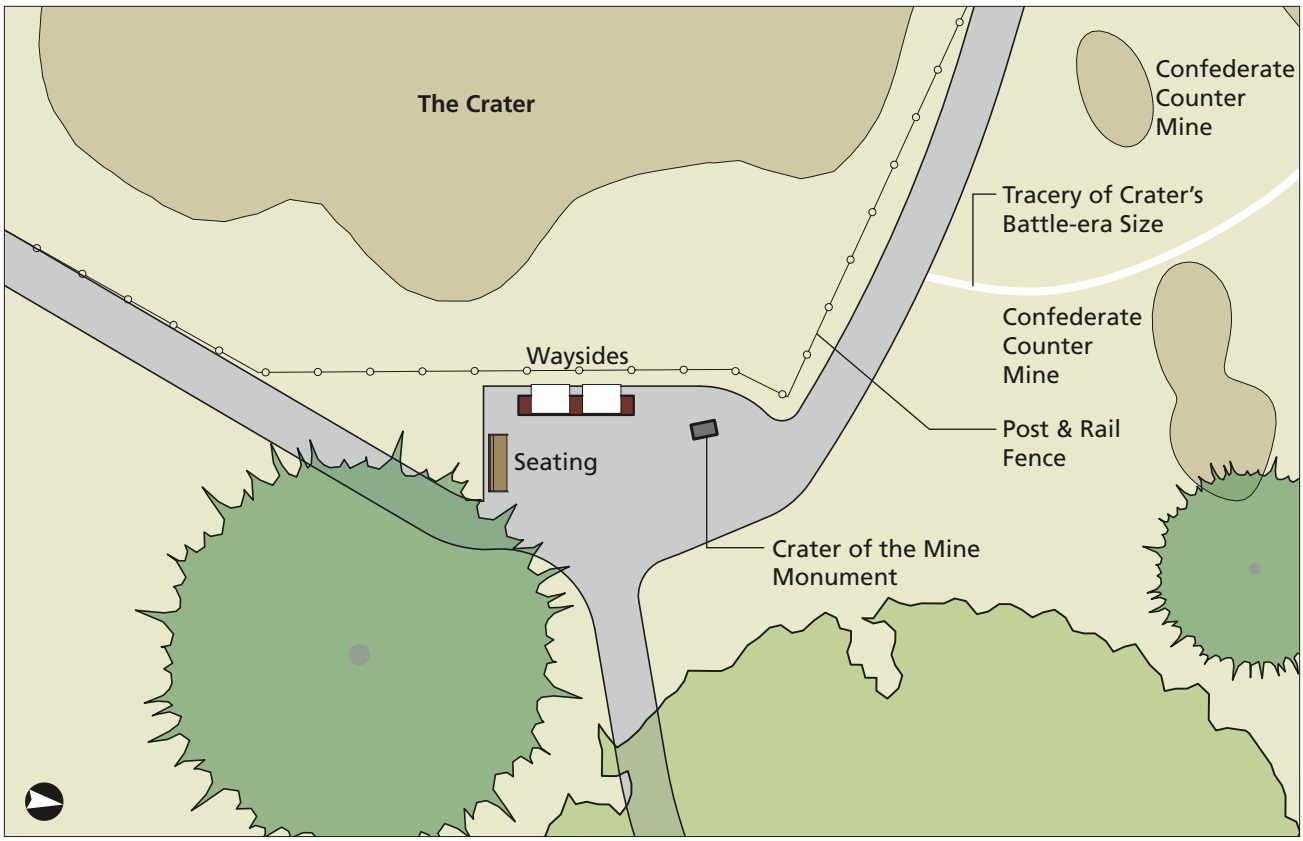


Figure 86. Crater east overlook to be redesigned. Plan, 2016 (OCLP)

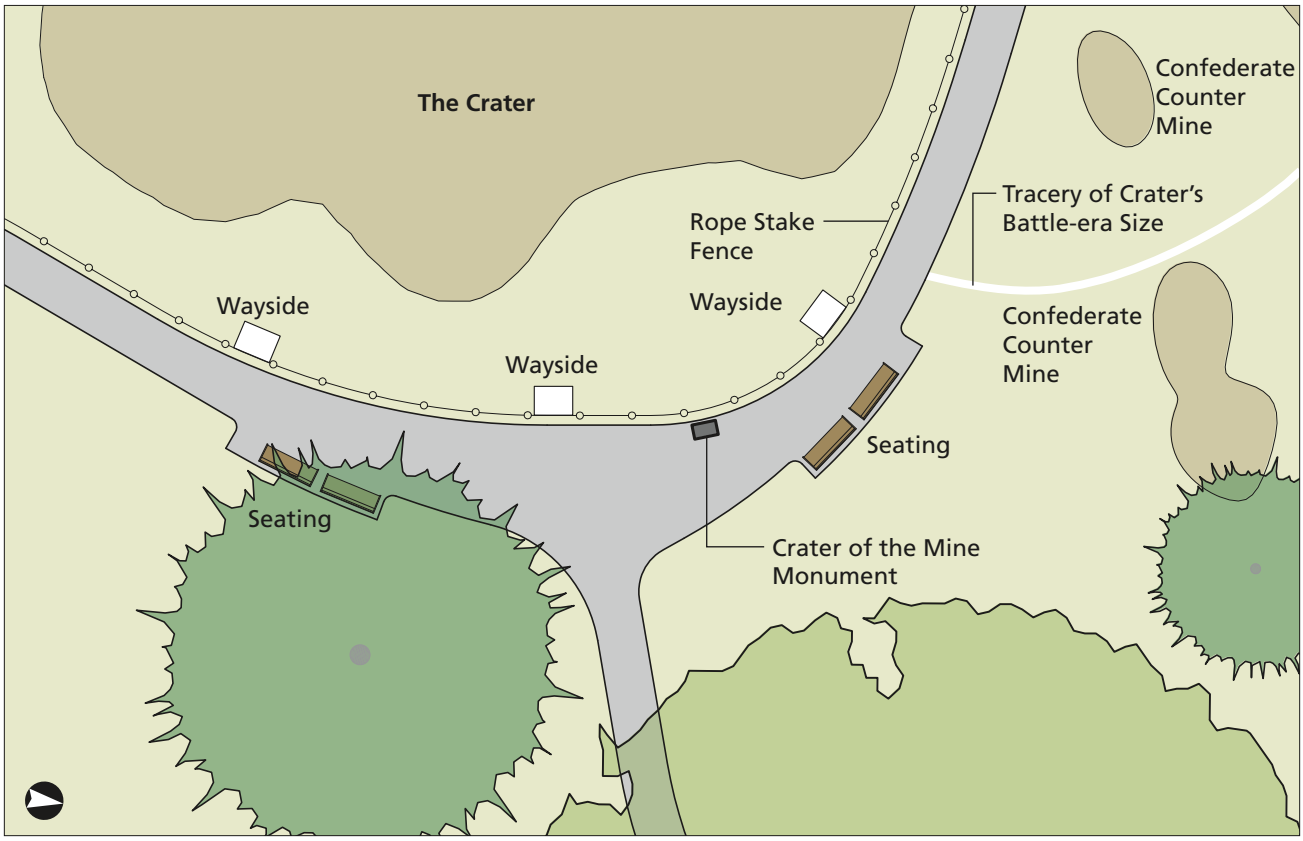


Figure 87. Redesigned Crater east overlook. Plan, 2016 (OCLP)

CR-2: Extend paved accessible route to USCT rallying point

Description

The role of the United States Colored Troops (USCT) in the Battle of the Crater is a vital story in the Petersburg Campaign. Presently, non-historic, successional vegetation and a lack of a universally accessible route prevents all visitors from reaching the point that USCT forces attained in the Confederate trenches north of the Crater. Consistent with the width and surface of the existing walkway surrounding the Crater, the park should extend a new paved and accessible route to bring visitors to the USCT rallying point (Figure 88).

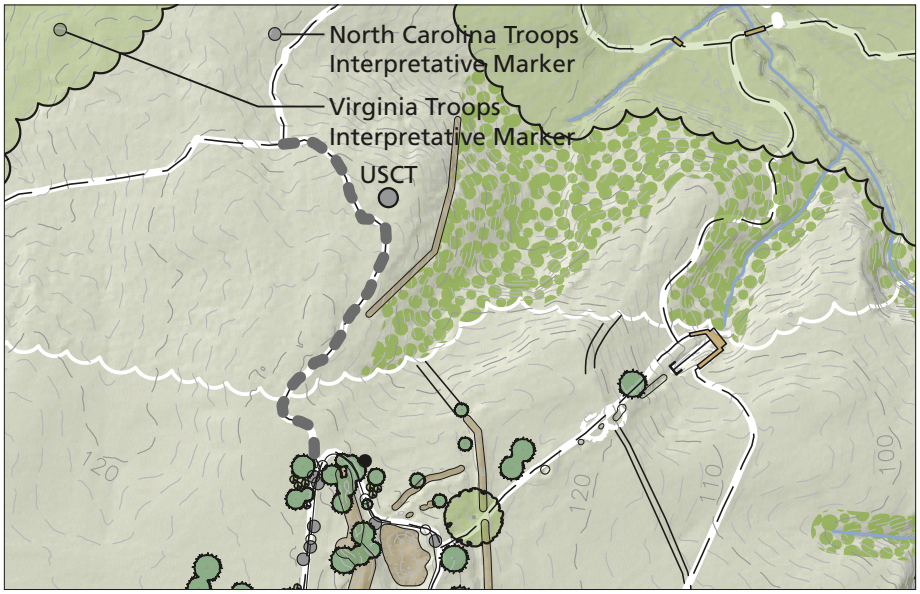


Figure 88. New paved accessible route (gray dashes) to be extended to USCT rallying point. Plan, 2016 (OCLP).

Relationship to Park Planning

The park's Foundation Document identifies the engagement of the USCT in more active combat at Petersburg than in any other campaign as a component of the park's significance.[26] The *General Management Plan* directs that movement through, and experience of the rehabilitated 1864–65 landscape, should help visitors understand decisive battles during the Petersburg Campaign.[27] Together, these two planning decisions support a paved accessible route from the current Crater perimeter walk to the point north reached by USCT forces during the Battle of the Crater.

Treatment Considerations

The accessible route should follow the existing trail north of the perimeter walk near Mahone's Brigade Monument. Minor grading or adjustments to the route may be required so that slopes do not exceed five percent and therefore would not require handrails and guardrails needed on an accessible ramp. The proposed paving design should match the existing stone sizes and colors seen in perimeter

walk's exposed aggregate concrete paving. Excavation and base preparation for the new paving will require the review of an archeologist.

CR-3: Improve maintenance access-way to acreage between Poor Creek and the railroad line

Description

The park maintains the area between Poor Creek and the railroad line as an open field and moves equipment to and from the area via an access-way that originates from the Park Tour Road. Tractors with large mowing equipment access the route by driving over a curb on the Park Tour Road and traveling up and down an earthen embankment where deep ruts and erosion occur. In order to facilitate conducting regular maintenance tasks, the park should improve the access-way to the area between Poor Creek and the railroad line (Figure 89).

Figure 89. Improved maintenance access-way to acreage between Poor Creek and railroad line. View northeast, 2015 (OCLP).

Relationship to Park Planning

The *General Management Plan* lists goals for preserving and protecting resources and identifies that historic structures, landscapes, archeological sites, and monuments that contribute to the significance of the park are stabilized, preserved, and maintained in good condition.[28] Improving the access-way to the area between Poor Creek and the railroad line will allow the park to maintain the landscape in the open condition soldiers experienced during the battle.

Treatment Considerations

The park should improve the maintenance access-way by installing a curb cut from the Park Tour Road, completing woody vegetation removals limited to the width of the route, and adding compacted aggregate to provide a more durable

and consistent driving surface. The present access point to the route requires vehicles to drive up a concrete curb along the Park Tour Road. A section of the curb, approximately ten feet, should be removed and replaced with a near-flush set concrete curb. This will allow larger vehicles and equipment, such as mower decks, to easily enter the access route. In order to keep drainage in the Park Tour Road gutter system, the new curb should be set 1/2-inch higher than the elevation of the gutter. The entry is well-positioned, on the inside edge of a curve, to avoid easy detection by park visitors. If there are concerns about park visitors accessing the route, a removable bollard should be installed with a locking mechanism and unlocked by park maintenance for their use. The route should be inspected, and periodically reviewed, and any woody vegetation growing in the width of the route should be removed as flush to ground level as possible. This component will involve removing vegetation likely less than one-inch in diameter and could be accomplished with hand loppers or other hand tools. Finally, in order to limit ruts and soil erosion and provide a more consistent driving surface, the park should install and compact dense graded aggregate in two three-foot wide strips set three feet apart. Vehicle wheels will travel along these aggregate strips and the strips can be easily replenished with additional aggregate if settling occurs.

CR-4: Develop pedestrian trail to connect to future routes through Civil War Preservation Trust parcel north of present park boundary

Description

The Civil War Preservation Trust owns an adjacent parcel, roughly 5.15 acres, north of the park boundary and bounded on the west by Blandford Cemetery, on the north by a Norfolk and Western Railway parcel, and on the east by the Norfolk and Western Railway rail lines. The park may acquire this parcel or work with the Civil War Preservation Trust to provide pedestrian access. Presently, there are no existing pedestrian routes or trails that link the park's current trail system to this adjoining parcel. The park should develop a trail that connects to the existing trail system and provides access to the Civil War Preservation Trust parcel (Figure 90).

Relationship to Park Planning

The park's 2004 *General Management Plan* reviewed boundary adjustments and identified two small parcels in the Eastern Front unit. The *General Management Plan* noted that the parcel north of the Crater, presently owned by the Civil War Preservation Trust, contained partial remains of Confederate lines and faced development pressure from Blandford Cemetery potentially enlarging.[29] Trails within the Civil War Preservation Trust parcel and connecting trails from the park's current system are consistent with the *General Management Plan* guidance that strategic battle actions, military tactics, and military engineering will be

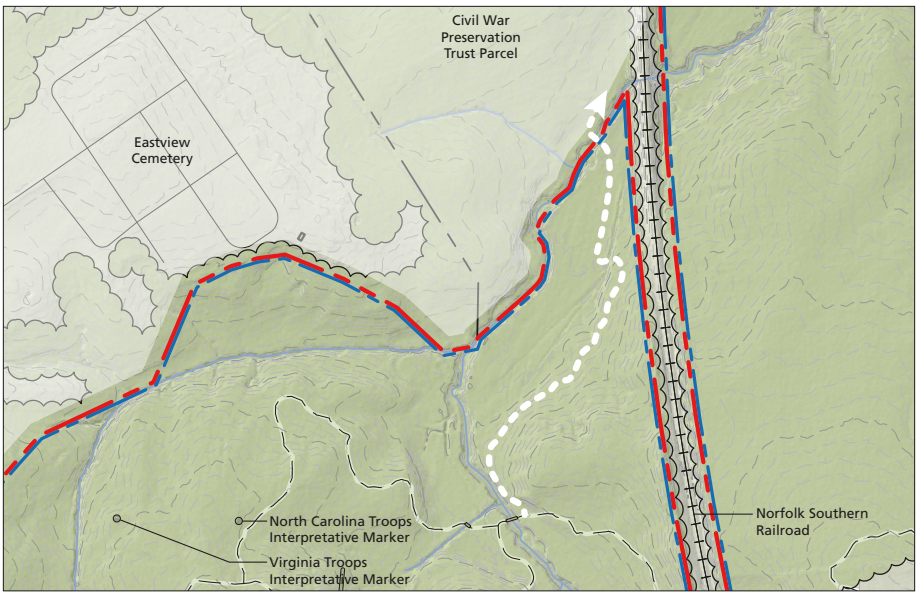


Figure 90. Pedestrian trail proposal to connect to future routes through Civil War Preservation Trust parcel. Plan, 2016 (OCLP).

conveyed by encouraging visitors to experience the landscape by trails, ranger-led, and self-guided tours.[30]

Treatment Considerations

The park maintains an existing trail that connects the Crater visitor parking area with the mine tunnel walk. This trail forms a loop to the east of these two hard-surfaced pedestrian routes and crosses Poor Creek at three established footbridges (Figure 91). A new trial to the Civil War Preservation Trust parcel should begin east of the northernmost bridge. Beginning at a topographic elevation of approximately 74 feet, this new trail should head northwest and then turn to the northeast following near the base of a plateau landform east of Poor Creek. Following the landform and contour signature, the trail should maintain a

Figure 91. Existing northern footbridge crossing Poor Creek closest to the park boundary with the Civil War Preservation Trust parcel. View southwest, 2015 (OCLP).

fairly consistent longitudinal slope and can be constructed by benching into the existing cross slope. The trail layout and design will then require a pair or more of switchbacks to negotiate roughly eight feet of vertical change. At the base of the plateau landform, the trail heads northwest across a flat area to the current property boundary and Poor Creek. A new footbridge will be required to cross Poor Creek and once across, a new trail or trail system could proceed through the Civil War Preservation Trust parcel. The new trail would cover about a quarter mile and as described, is north of major avenues of approach from the battle. In addition, the proposed trail does not impact any earthworks or features depicted on the 1865–67 Michler Map (Figure 92). Archeological review and compliance are still necessary prior to constructing this trail.

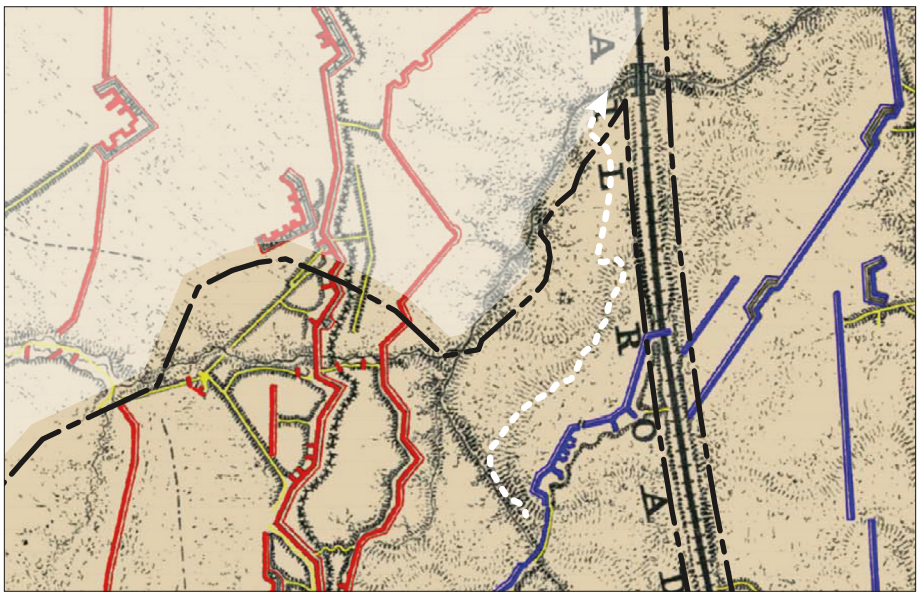


Figure 92. Proposed pedestrian trail does not impact any earthworks or features depicted on the 1865–67 Michler Map. Plan, 2016 (OCLP).

VEGETATION

VG-1: Add understory plantings to screen adjacent, contemporary development outside park (related task, SO-1)

Description

Vegetation removals to support battle-era historic landscape character and to preserve earthen structures have the potential to permit views to contemporary development adjacent to the park (Figure 93). Understory plantings should be added throughout the woody areas along the park boundary to screen adjacent, contemporary development (Figure 94).

Relationship to Park Planning

In the Battlefield Interpretative Zone, the *General Management Plan* emphasizes an interpretive experience free of modern intrusions in which the visitor could

Figure 93. Understory plantings to be added to screen adjacent, contemporary development outside park. View west of the Gee House site, 2016 (OCLP).

Figure 94. Added understory plantings to screen adjacent, contemporary development outside park. View west of the Gee House site, 2016 (OCLP).

be fully involved in understanding the actions of the battle.[31] Adding understory plantings to screen contemporary, offsite development will help the park achieve this interpretive and visitor experience goal.

Treatment Considerations

On site reviews and consultations with park staff specifically identified the need for understory screen planting west of the Gee House site, west and north of the Cornfield Battery, and south of Zig-Zag trench. Additional areas should be considered after completing the clearing of non-historic, successional woodlands (see task SO-1).

Native small trees and large shrubs, including native species already present at the park, should be interspersed in open areas among existing woody vegetation. A majority of the new understory planting should consist of evergreen species such as American holly (*Ilex opaca*) and Catawba rhododendron (*Rhododendron catawbiense*) in order to provide year-round screening. In addition to the evergreens, deciduous material with dense branching such as withchhazel (*Hamamelis virginiana*) and blackhaw viburnum (*Viburnum prunifolium*) should be mixed into the planting to prevent the new screening from appearing as an evergreen hedge. New tree and shrub planting holes for this task will require the review of an archeologist.

VG-2: Add stream corridor buffer planting and thicket planting on steep slopes in proposed cleared area north of Crater (related task, SO-1)

Description

The proposed clearing north of the Crater, detailed in task SO-1, involves removing non-historic, successional woody vegetation around intermittent stream and drainage corridors as well as on existing slopes that will make routine mowing difficult. Without routine mowing or modifying planting, the cleared areas will revert to successional woods and will not reflect the battle-era pattern of open fields and forested areas (Figure 95). The park should add a stream corridor buffer planting and a thicket planting on steep slopes to maintain a more open landscape character in challenging areas north of the Crater (Figure 96).

Relationship to Park Planning

A major goal articulated in the *General Management Plan* is to rehabilitate the pattern of open fields and forested areas so visitors can be fully involved in understanding the actions of the battles.[32] The document also acknowledges that this goal will be achieved to the fullest extent practical, a caveat seeking to balance cultural and natural resource management goals, interpretive goals, and the contemporary operations of the park.

Figure 95. Area cleared near Poor Creek in 2010 reverting to successional woods. A 6-foot tall scale figure has been added to convey the height of the rapidly growing woody vegetation. View southeast, 2015 (OCLP).

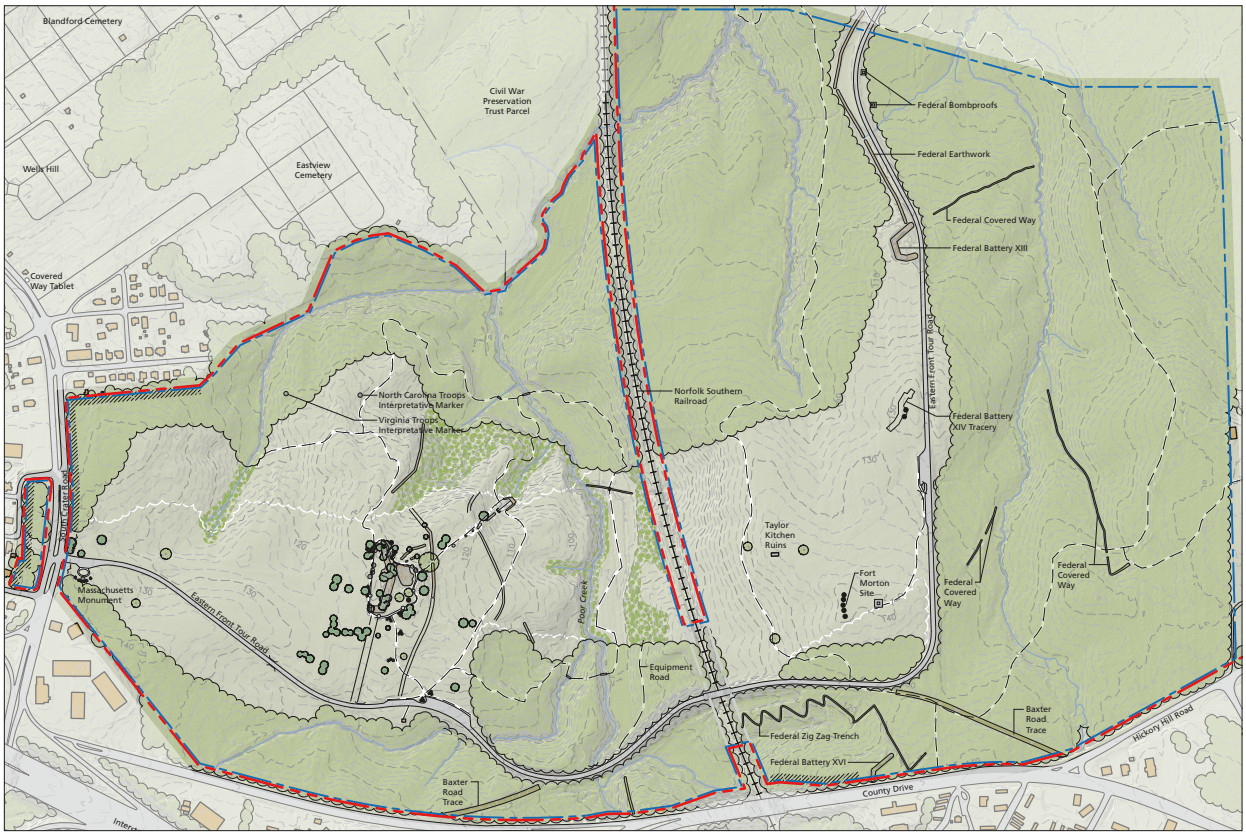


Figure 96. Stream corridor buffer planting and thicket planting (dark green) to maintain a more open landscape character in challenging areas of the Crater Battlefield. Plan, 2016 (OCLP).

Treatment Considerations

The LiDAR slope analysis reviewed for the proposed clearing task color codes slopes between 10 and 15 percent as yellow and slopes greater than 15 percent as red (see Figure 75). These yellow and red areas, often corresponding to valleys for stream corridors, denote slopes that are challenging to mow, especially with large equipment. A key area with steep slopes lies between Poor Creek and the Confederate earthwork line. This area served as an avenue of approach for USCT forces and Union troops in the IX, X, and XVIII Corps. After clearing and planting with a specified seed mix, the steep areas and stream corridors can be allowed to regenerate naturally. Seed dispersal and a lack of mowing will introduce woody species to the areas. The park may also choose to plant small, native, deciduous shrubs such as sassafras (*Sassafras albidum*) and spicebush (*Lindera benzoin*). For the stream corridor width, a precedent is found at Gettysburg National Military Park where the park partnered with the Chesapeake Bay Program to plant a 35-foot vegetative buffer along creeks, streams, and riparian channels. An identical 35-foot riparian buffer is proposed for clearing in the area north of the Crater.

Both the stream corridor buffer planting and thicket planting will need to be monitored. When woody vegetation exceeds a height of ten to fifteen feet, that vegetation should be removed or pruned back to maintain views across the battle-era open areas. The cut vegetation should be allowed to resprout and monitoring should continue to maintain these areas with a more open vegetative character.

The infrequent cutting back of the buffer and thicket areas could be accomplished by a contractor or by park maintenance staff utilizing new machinery. A forestry mulcher, available for skid steer tractors or as a boom attachment, would quickly reduce woody vegetation heights in the buffer and thicket areas (Figure 97).

Figure 97. A forestry mulcher, shown attached to a skid steer tractor, would aid park maintenance staff in quickly reducing woody vegetation heights in the buffer and thicket areas (https://www.deere.com/en_US/products/attachment/worksite_pro_attachments/mulching_heads/mulching_heads.page).

VG-3: Manage woody vegetation over mine tunnel, at the Crater, and at the trench cavalier to preserve resources and enhance the solemnity of the site

Description

Woody vegetation is presently growing over the mine tunnel, at the Crater, and at the trench cavalier that was not present during the battle era. This vegetation, predominantly Eastern redcedars (*Juniperus virginiana*), should be managed according to type—deciduous versus evergreen—and proximity to resource and not be immediately removed in a wholesale fashion.

Relationship to Park Planning

The park's Foundation Document lists the solemnity of sites as a fundamental resource and value.[33] In addition, the *General Management Plan* acknowledges that natural resources, such as trees and vegetation, will be managed to protect the character and quality of the park's significant cultural resources.[34]

Treatment Considerations

The first resource area to consider is the mine tunnel and woody vegetation growing over mine tunnel. One deciduous tree and two Eastern redcedars (*Juniperus virginiana*) are presently growing directly over the tunnel, closest to the mine portal, and should be removed and not replanted (Figure 98). The trees should be cut as flush to ground level as possible and the cut deciduous trunk only should be treated with a triclopyr herbicide to prevent resprouting. The stumps can be left to decay in place accelerated by drilling a series of holes and filling the holes with a mixture of compost, soil, and organic fertilizer such as cottonseed meal.[35] A large deciduous tree, a Southern red oak (*Quercus falcata*), is also growing over the mine tunnel closest to the Crater (Figure 99). This specific tree has been nominated for "The Remarkable Trees of Virginia," a four-year crowdsourcing effort to document the states' largest, oldest, most historic, beautiful and beloved trees.[36] Additionally, the tree and its size provide an excellent indicator in the landscape to direct visitors towards the Crater. This specific tree should be monitored by a certified arborist and treated following best management practices, such as canopy thinning, directed by the arborist. When deemed necessary by a certified arborist, the Southern red oak should be removed to protect the mine tunnel and not replanted.

The second resource area to consider is the trench cavalier and 16 Eastern redcedars (*Juniperus virginiana*) presently growing on the historic earthwork. The evergreen Eastern redcedars are less likely to be toppled compared to deciduous trees in strong winds and storm events. In addition, the narrow, conical shape and evergreen foliage is often seen in cemetery plantings and by this association, lends

Figure 98. One deciduous tree and two Eastern redcedars (*Juniperus virginiana*) presently growing directly over the tunnel, closest to the mine portal, to be removed and not replanted. Plan, 2016 (OCLP).

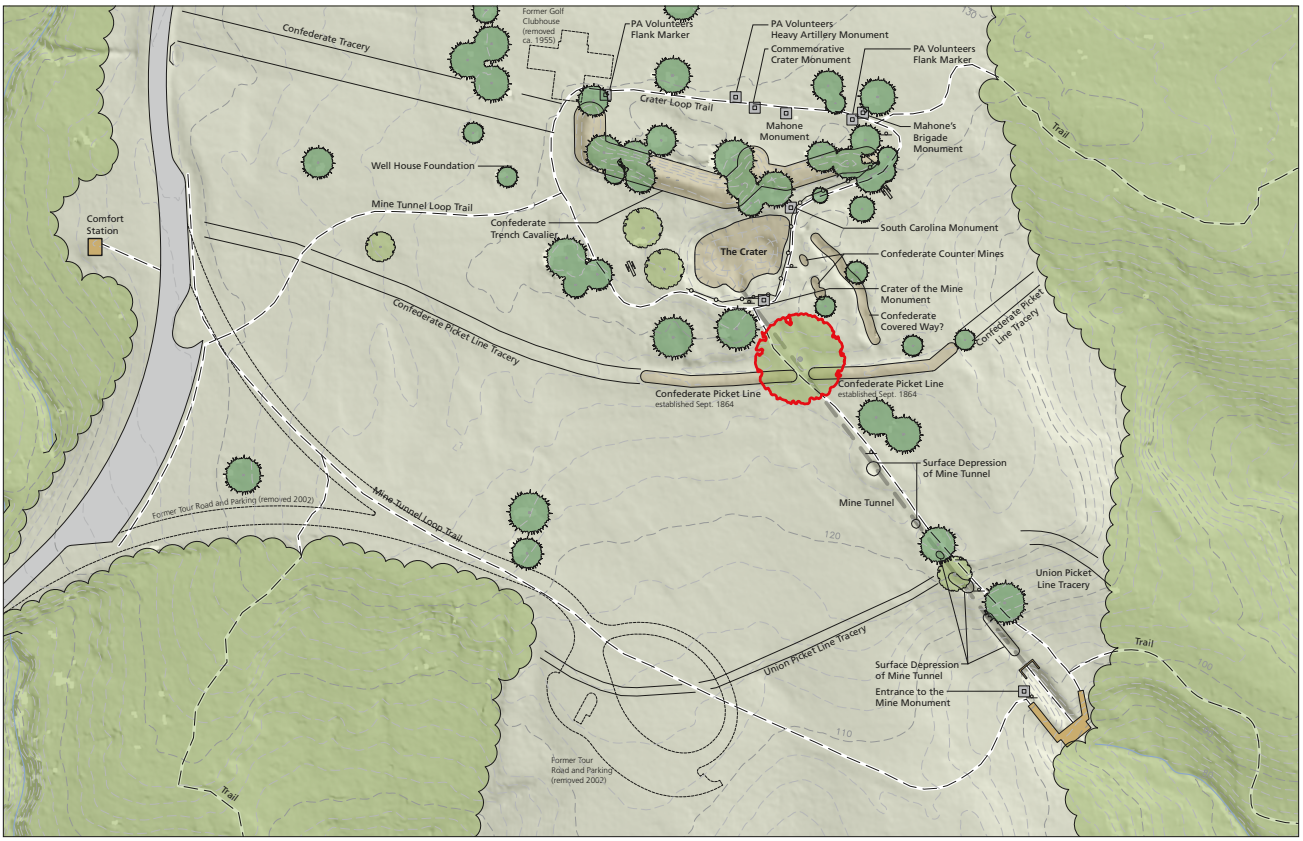


Figure 99. Large Southern red oak (*Quercus falcata*) to be monitored and treated following best management practices. Remove when deemed necessary by a certified arborist to protect the mine tunnel and do not replanted. Plan, 2016 (OCLP).

to the goal of creating a solemn setting around the Crater. For these reasons, the 16 Eastern redcedars should not be immediately removed (Figure 100). Instead, they should be monitored by a certified arborist for potential disease and decline and when deemed necessary to protect trench cavalier, they should be removed and not replanted.

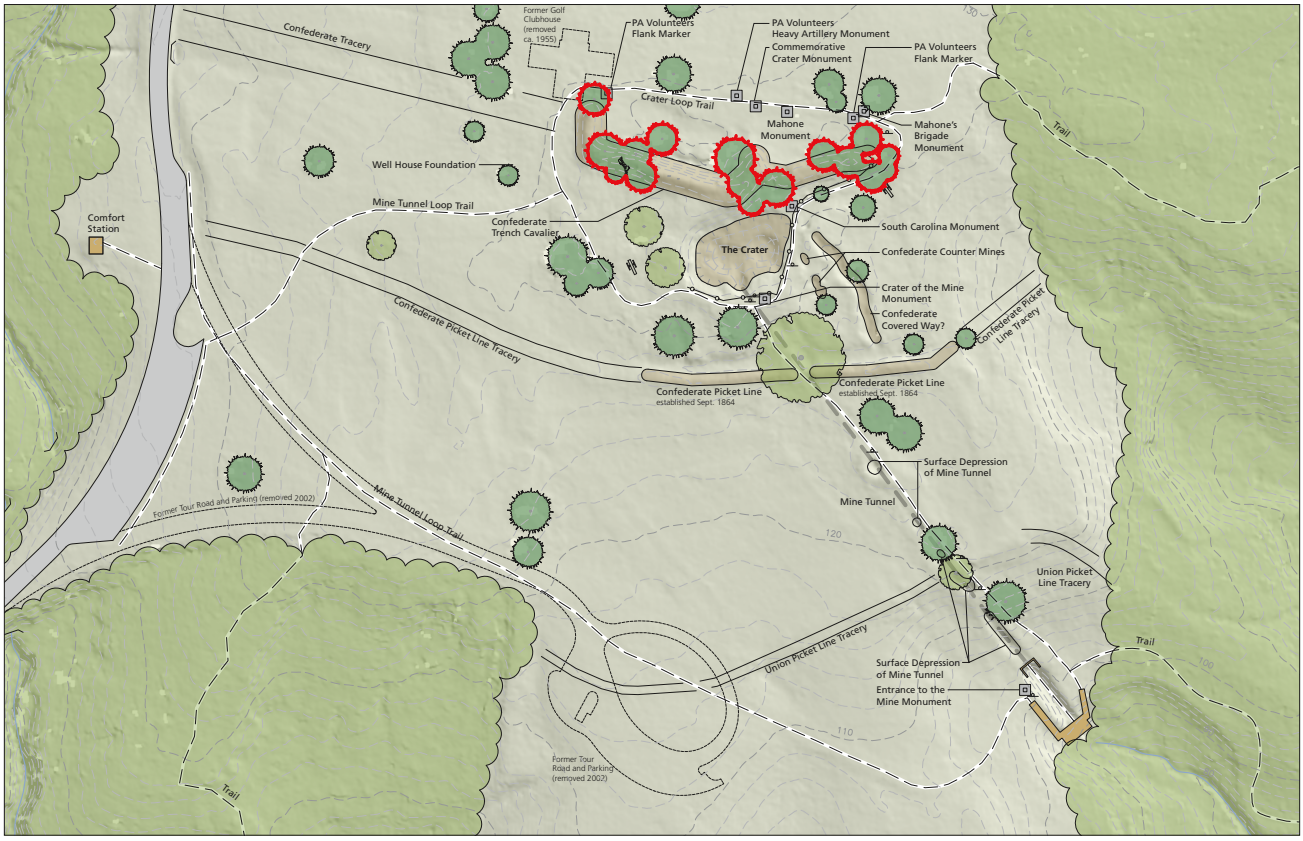


Figure 100. Eastern redcedars (*Juniperus virginiana*) to be monitored for potential disease and decline and when deemed necessary to protect trench cavalier, removed and not replanted. Plan, 2016 (OCLP).

VG-4: Design new plantings at Crater environs in enhancement to the solemnity of the site

Description

The immediate area around the Crater and trench cavalier includes a perimeter walk and dozens of evergreen Eastern redcedars (*Juniperus virginiana*) (Figure 101). As the epicenter of the battle, and having witnessed a tremendous loss of life, the solemnity of this space should be enhanced by new plantings of small flowering deciduous trees (Figure 102).

Relationship to Park Planning

The park's Foundation Document lists the solemnity of sites as a fundamental resource and value.[37] The magnitude of sacrifice at the Crater Battlefield is appropriately remembered and reflected upon at the Crater depression and its immediate surroundings.

Figure 101. The Crater and trench cavalier perimeter walk with existing Eastern redcedars (*Juniperus virginiana*). View north, 2015 (OCLP).

Figure 102. New plantings added along the Crater and trench cavalier perimeter walk to enhance the solemnity of the site. View north, 2016 (OCLP).

Treatment Considerations

New planting around the Crater and trench cavalier should be located along the outside edge of the perimeter walk and also along the walk that connects the Crater parking area to the perimeter walk. Ornamental plantings should not be added to the east side of the perimeter walk where views among the Crater, the mine entry, and Fort Morton are key to understanding the events of the battle. The plant palette should consist of native small trees with spring flowers such as Eastern redbud (*Cercis canadensis*) and Carolina silverbells (*Halesia carolina*). In addition, hybrid dogwoods that are resistant to anthracnose and have been introduced by Rutgers University should be included as a substituted for the American dogwood (*Cornus florida*). Two commercially available hybrid cultivars with white flowers are Constellation™ (*Cornus* × 'Rutcan') and Celestial™ (*Cornus* × 'Rutdan'). New tree and shrub planting holes for this task will require the review of an archeologist.

VG-5: Design new plantings at the Massachusetts Monument and Crater visitor parking area

Description

The Massachusetts Monument and Crater visitor parking area should both be enhanced by new plantings of small flowering deciduous trees (Figures 103 and 104).

Relationship to Park Planning

The proposed new plantings are consistent with the resource conditions, levels of management, and visitor experience articulated in the *General Management Plan* for the Battlefield Interpretative Zone.[38]

Treatment Considerations

The Massachusetts Monument has been relocated twice since its installation in 1911. The current location, south of the Park Tour Road, is readily accessed by a vehicular pull off and elliptical walk to the monument. A sense of arrival and a more formal setting for the monument may be achieved be a symmetrical planting on the outer edge of elliptical walk, where walk meets vehicular pull off. The present Crater visitor parking area was constructed in 2004 as part of a rerouting of the Park Tour Road and removal of a parking area that crossed Union picket lines. The beginning of the visitor experience to the Crater may be signified by small flowering deciduous trees planted on the west side of the parking area, near the start of the walkways. Identical to the new plantings at Crater environs (see task VG-4), the plant palette should consist of native small trees with spring

Figure 103. Massachusetts Monument vehicular pull off and elliptical walk. View south, 2017 (OCLP).

Figure 104. New plantings added at Massachusetts Monument vehicular pull off and elliptical walk. View south, 2017 (OCLP).

flowers such as Eastern redbud (*Cercis canadensis*), Carolina silverbells (*Halesia carolina*), and hybrid dogwoods resistant to anthracnose.

VG-6: Convert portion of meadow to woodland south of tour road

Description

As visitors travel on the Park Tour Road, heading roughly west from the Crater parking area to South Crater Road, an area south of the road is presently maintained as meadow. This area saw limited battle action during the Battle of the Crater. In order to balance resource and interpretive goals and the contemporary operations of the park, the park should convert this specific area from meadow to woodland (Figure 105).

Relationship to Park Planning

The *General Management Plan* states as a major goal the rehabilitation of open field and forested areas so visitors can be fully involved in understanding the actions of the battles.[39] The document also acknowledges that this goal will be achieved to the fullest extent practical, a caveat seeking to balance cultural and natural resource management goals, interpretive goals, and the contemporary operations of the park. Converting a portion of meadow to woodlands in a discrete area that experienced limited battle action supports these management objectives.

Treatment Considerations

The proposed area to convert should be staked in the field and reviewed by park resource and interpretive staff. As depicted on the Treatment Plan, the proposed area retains artillery fields of fire from Confederate cannon positioned on Jerusalem Plank Road, presently South Crater Road, east and southeast of the Gee House (Figure 106). These battle-era tactical views should be reviewed in the field and adjusted if necessary.

Eliminating mowing of the proposed area and allowing vegetative succession to occur is a means to convert the area, however, the public may not appreciate this natural process and complain about its appearance. As an alternative, the proposed area may be planted with bare-root seedlings or slightly larger container-grown saplings. To convert open fields to battle-era woodlots, Gettysburg National Military Park planted deciduous bare-root seedlings at a rate of 680 per acre or planted deciduous container-grown saplings at a rate of 388 per acre. Following this precedent, the park would need approximately 2,142 bare-root or 1,222 container-grown plants to replant the proposed 3.15 acre area. The exact composition of the deciduous species should be reviewed with the Virginia Department of Forestry.[40]

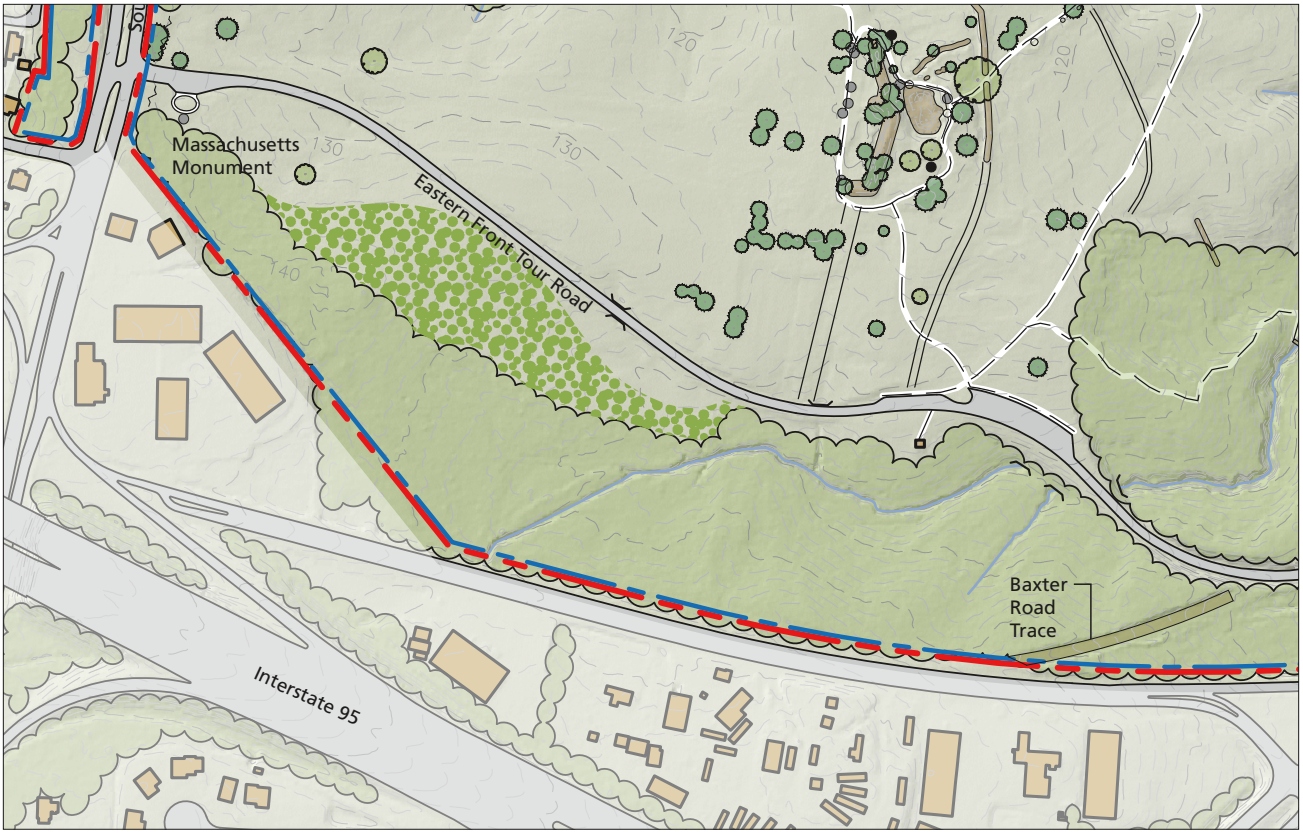


Figure 105. Portion of existing meadow to convert woodland south of tour road. Plan, 2016 (OCLP).

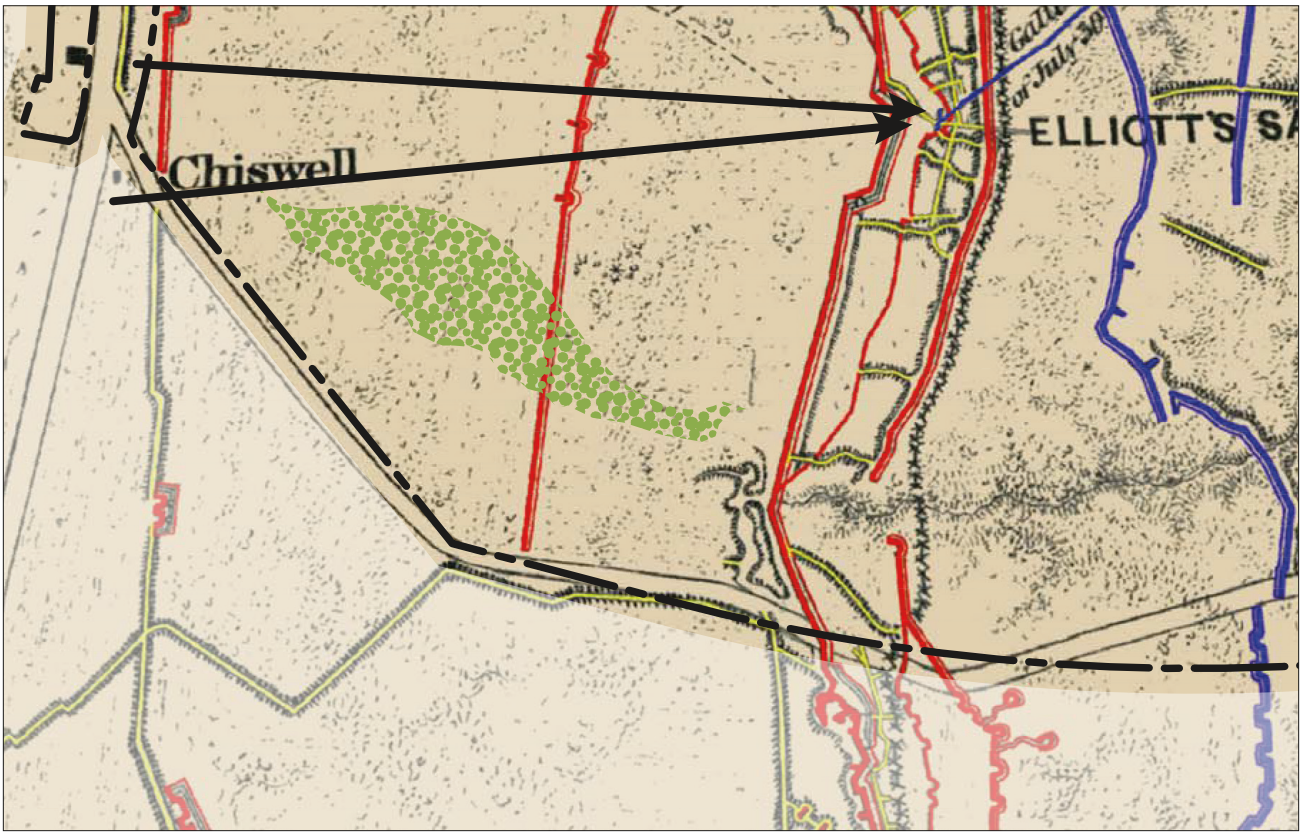


Figure 106. Artillery fields of fire from Confederate cannon positions retained by proposed meadow conversion. Plan overlay on 1865–67 Michler Map, 2016 (OCLP).

SMALL-SCALE FEATURES

SSF-1: Replace failing post and rail fence with rope stakes around the Crater and trench cavalier perimeter walk

Description

A non-historic, 3-rail post and rail fence parallels a portion of the Crater and trench cavalier perimeter walk. Installed to keep pedestrian on the walk and off of park resources, the horizontal rails on the existing fence have unintentionally encouraged visitors to climb the fence and use the rails as seating. In addition, the posts are prone to rotting creating an unstable barrier and requiring recurring maintenance and replacement (Figures 107). The park should remove the existing post and rail fence and replace it with black rope stakes and rope along the entire perimeter walk to keep pedestrian traffic away from resources (Figures 108).

Figure 107. Failing post and rail fence to be replaced with rope stake fence around the Crater and trench cavalier perimeter walk. View southeast, 2015 (OCLP).

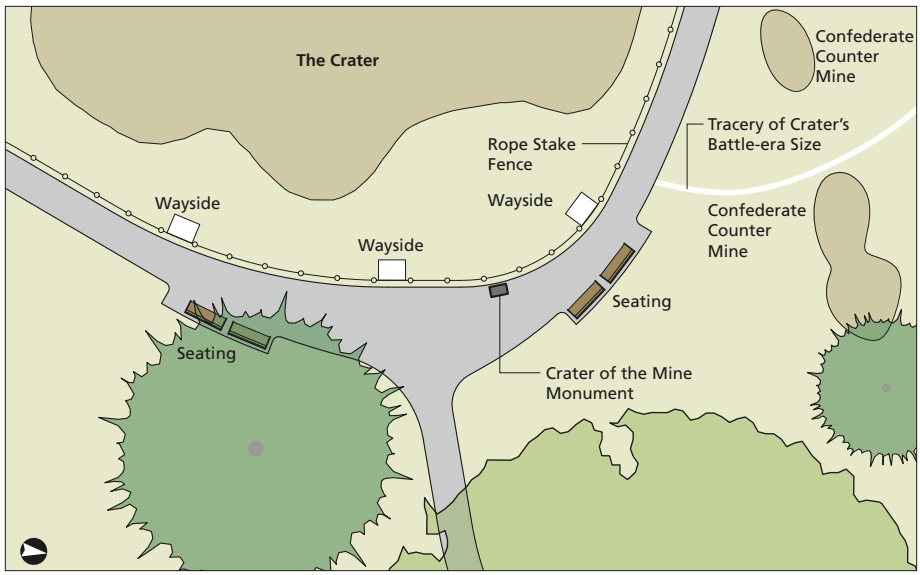


Figure 108. Rope stakes installed around the Crater and trench cavalier perimeter walk. Plan, 2016 (OCLP).

Relationship to Park Planning

In the Battlefield Interpretative Zone, the *General Management Plan* emphasizes an interpretive experience free of modern intrusions in which the visitor could be fully involved in understanding the actions of the battle.[41] The size and materials of contemporary fencing or barriers for resource protection should be as unobtrusive as possible to support this management prescription.

Treatment Considerations

The existing fence does not parallel the entire perimeter walk and begins near the north end of the trench cavalier. The fence follows the inside edge of the perimeter walk and heads roughly southeast to the southern end of the Crater. Rope stakes provide a less obtrusive deterrent than a post and rail fence and recede into the views and experience of the landscape. Less expensive to purchase and easier to install than a post and rail fence, rope stakes could be installed following the entire perimeter walk. In addition each stake, rough 3/8" in diameter, has less potential to impact archeological resources than the post hole needed for the fence.

Rope stakes are readily available from golf course and landscape suppliers and have been successfully installed at parks, such as Minute Man National Historical Park (Figures 109). The stakes should have a 36-inch height above finished grade and be treated with a black powder coating to reduce maintenance requirements. Black, braided, polypropylene rope can be threaded through the stake eyelets to unobtrusively define a boundary and keep pedestrians off of the Crater and trench cavalier.

Figure 109. Precedent installation of rope stakes around the Minute Man Statue, Minute Man National Historical Park. View north, 2016 (OCLP).

SSF-2: Remove brick pedestals and install NPS "low-profile" interpretive waysides

Description

At the entry to the mine tunnel, the east Crater overlook, and north of the trench cavalier, the park presently has waysides installed on brick and masonry pedestals. Although these installations follow of the guidance of the *NPS UniGuide Sign Program*, the brick structures serve only as a substantial, architectural base to mount the interpretive waysides (Figures 110). The park should remove the brick structures and install NPS low-profile metal supports to minimize visual clutter and contemporary structures in the landscape (Figures 111).

Figure 110. Brick wayside pedestal to be removed. View southwest of east Crater overlook, 2016 (OCLP).

Figure 111. NPS low-profile wayside to replace brick pedestal. Richmond National Battlefield Park, 2016 (OCLP).

Relationship to Park Planning

In the Battlefield Interpretative Zone, the *General Management Plan* emphasizes an interpretive experience free of modern intrusions in which the visitor could be fully involved in understanding the actions of the battle.[42] The size and materials of contemporary interpretive media should be as unobtrusive as possible to support this management prescription.

Treatment Considerations

The National Park Service's Visitor Information Sign System is prepared by the NPS UniGuide Sign Program based at the Harpers Ferry Center. One of the standard wayside exhibit designs, that the park presently has installed near Fort Morton, is the "low-profile" base. This design is intended to diminish the wayside exhibit's presence on the landscape by using the least material required to securely hold an exhibit panel. The panels are positioned at a 45-degree angle to permit visitors a clear view of the feature that the exhibit interprets.[43] New low-profile bases should be designed and coordinated with the Harpers Ferry Center, also offering the park an opportunity to update the interpretive panel media. The brick pedestals should be removed and the new bases installed. In addition, the solar panels should be relocated to a less conspicuous location, or removed altogether, if audio or a cell phone tour can be accessed without the solar power source. This task and future interpretive exhibits should add the least obtrusive and minimal amount of new materials to the landscape.

SSF-3: Present viable alternatives for marking missing or interrupted battle-era earthworks

Description

The park currently marks missing or interrupted battle-era earthworks by placing a line of crushed shells around the perimeter or along the inside and outside edges. An element of height is communicated for where the former features stood by reducing mowing and allowing the turf to grow into a taller stand (Figures 112). This interruptive technique is effective, especially when visitors are in close proximity to the former features, such as on the walks near the Union and Confederate picket lines. When viewed from greater distances, the technique is less effective and can be enhanced by selecting an alternative from a proposed pallet of interpretive markings (Figures 113).

Figure 112. Missing battle-era earthwork interpreted by line of crushed shells around the perimeter and taller stand of turf in the middle. View northwest, 2015 (OCLP).

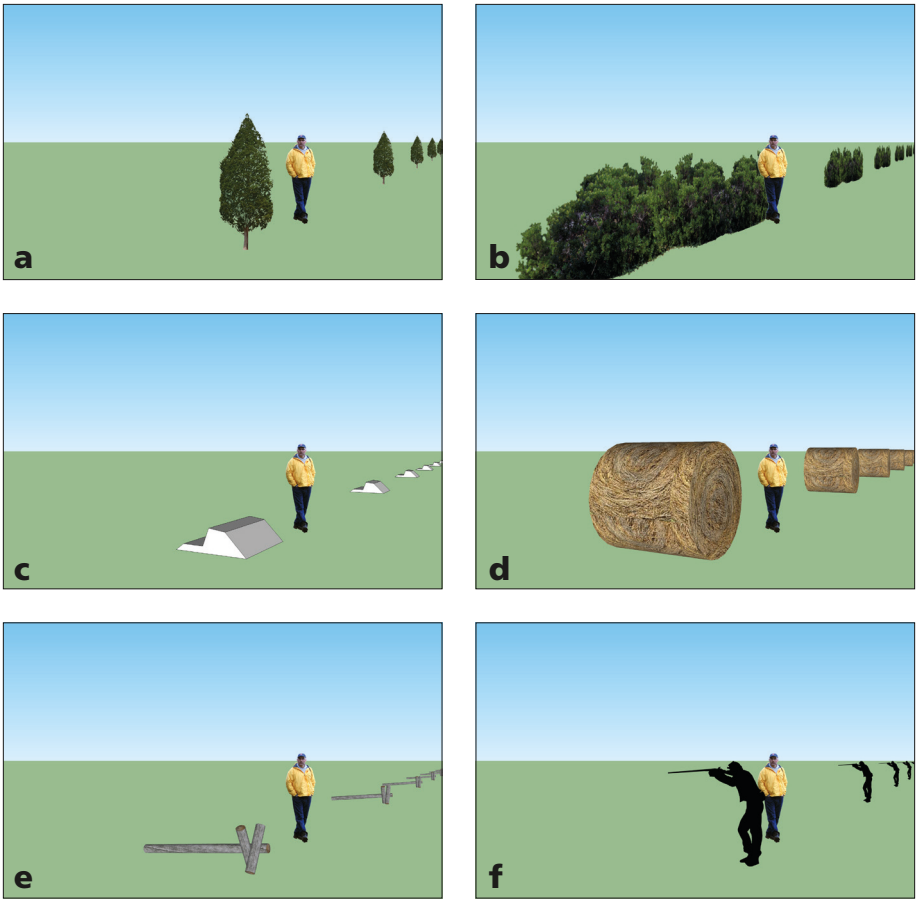


Figure 113. Viable alternatives for marking missing or interrupted battle-era earthworks may include (a) planting Eastern redcedars, (b) planting bayberry shrubs, (c) placing precast concrete markers on grade, (d) placing round hay bales on grade, (e) placing wood cross braces on grade, and (f) installing scale figures or figure silhouettes made of weather-resistant materials (OCLP).

Relationship to Park Planning

In the Battlefield Interpretative Zone, the *General Management Plan* deems appropriate interpretation facilities such as visitor centers, contact stations, trails, kiosks, wayside exhibits and other interpretive media.[44]

Treatment Considerations

New interpretive markings must be designed to be readily removed with limited impacts to the landscape and to eliminate potential impacts to archeological resources. For example, a marking or fixture requiring a below-frost depth concrete footing is not sensitive to archeological resources and would necessitate great effort, materials, and equipment to install and remove. With reversibility and archeological resource protection in the forefront, several options exist for enhancing the location, scale, and massing of missing or interrupted battle-era earthworks. The first three options were proposed by the National Park Service in 1935 and include:

Planting Eastern redcedars (*Juniperus virginiana*)
Planting bayberry shrubs (*Myrica pensylvanica*)
Placing precast concrete markers (5-feet long by 4-feet 4-inches wide by 1-foot 4-inches high) on grade

All three options locate a tree, shrub massing, or concrete marker every 40-feet along a picket or defensive line. In addition to these early proposals, other options that merit consideration include:

Placing round hay bales on grade
Placing wood cross braces on grade
Installing scale figures or figure silhouette made of weather-resistant materials

In order to fairly evaluate these options, visualizations should use a 40-foot spacing to match the 1935 proposals for using trees, shrub massings, or concrete markers. A final option that could represent a long, linear distance in a cost effective and minimal impact fashion is to installing printed scrim fabrics on frames or braces set on grade. Frequently utilized on the perimeters of construction sites, the scrim material is weather resistant and with inconspicuous slits will allow air and wind to flow through. Different heights and lengths can be readily custom ordered as well as different colors, textures, and custom-printed imagery. The scrims can be hung from tensioned cables anchored to narrow metal poles set in an on-grade concrete pedestal.

The alternatives presented for marking missing or interrupted battle-era earthworks are intended as a starting point to enhance the location, scale, and massing of these critical features in the landscape. If the park elects to move forward with this recommendation, the park will need to engage interpretive

specialists and stakeholders and to complete required reviews and compliance procedures.

FACILITY MANAGEMENT SOFTWARE SYSTEM WORK PLANNING

For the past four decades, the National Park Service has implemented the use of facility management computer software to manage park infrastructure and track costs associated with their care. Accurate organization and timely updates to the National Park Service Facility Management Software System (FMSS) enables parks to prioritize projects and create funding requests that accurately reflect asset value and condition. FMSS hierarchy consists of Sites (e.g. Eastern Front), Asset Types (e.g. Maintained Landscapes), Locations (geographic areas, e.g. Grounds at Crater & Mine Tunnel), and Assets (features, e.g. turf).

The Crater Battlefield cultural landscape is tracked through a number of Asset Types including Roads, Bridges, Fortifications, Maintained Landscapes, Buildings, Outdoor Sculptures/Monuments, and Maintained Archeological Sites. A number of assets associated with the cultural landscape are tracked under the "Maintained Landscapes" asset type. For the purposes of the FMSS database, a Maintained Landscape typically includes exterior park areas that have been developed and improved to support operations or visitor activities. To be classified as a Maintained Landscape, a landscape must require regular, recurring maintenance and include built features.

Organization of FMSS data varies by park to reflect specific resources for which the park needs to track costs. At the time of writing, the Crater Battlefield's Maintained Landscapes are tracked within four separate locations. The four locations include the prefix "EF" for the Eastern Front site designation and include, "EF: Grounds at Fort Morton" (21809), "EF: Grounds at Crater & Mine Tunnel" (21810), "EF: Grounds at Tour Road Exit & Crater Battlefield" (22462), and "EF: Grounds at Crater Battlefield North / CCA" (236128). Many of the Assets associated with Crater Battlefield Maintained Landscapes are already entered in FMSS, however, additional Asset data will be required as landscape treatment projects are identified and developed.

Two tables at the end of this chapter serve as a first step in translating landscape treatment recommendations into project funding requests. Table 3 provides a glossary of FMSS work type and sub-type codes. Table 4 translates the cultural landscape treatment recommendations to FMSS work orders and tasks with work types and sub-types. In addition, units of material are listed to facilitate cost estimating. Recommended additions to the existing FMSS data for the Crater Battlefield are provided in Table 4.

ENDNOTES

1 NPS-28, 96.

2 Public Law 69-467, 44 Stat. 822.

3 Executive Order 7329.

4 *Petersburg National Battlefield Final General Management Plan Abbreviated Final Environmental Impact Statement* (US Department of the Interior, National Park Service, December, 2004), 12.

5 Ibid., 49.

6 Ibid., 52 and 55.

7 *Foundation Document Petersburg National Battlefield* (US Department of the Interior, National Park Service, November 2016), 2.

8 Ibid., 5.

9 Ibid., 6.

10 Ibid., 10.

11 Ibid., 12.

12 *General Management Plan*, 45.

13 Charles A. Birnbaum and Christine Capella Peters, eds., *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes* (Washington, D.C.: U.S. Department of the Interior, 1996), 48.

14 Ibid., 49.

15 Ibid., 18-19.

16 Laura J. Kline et al., *National Register of Historic Places Registration Form for Petersburg National Battlefield* (Public Archaeology Laboratory, Draft, December 2014), Sect 8:64.

17 *General Management Plan*, 52.

18 Ibid., 52, 55.

19 Public Law 69-467.

20 *Foundation Document*, 7.

21 Ibid., 10.

22 Kline, *National Register*, Sect 7:23-24.

23 "Petersburg Web LoGIStics," City of Petersburg and Timmons Group, accessed December 2016, https://petersburggis.timmons.com/#/mwl.

24 *City of Petersburg Zoning Ordinance* (City of Petersburg, September 15, 2015), 50-52, available at: http://www.petersburgva.gov/DocumentCenter/View/23. Although permitted in zone B-2, neither parcel can be developed into an adult book store, adult entertainment establishment, adult motion picture theater, or adult video store since both parcels are within 500 feet of a property in a residential district.

25 *General Management Plan*, 52.

26 *Foundation Document*, 6.

27 *General Management Plan*, 52 and 55.

28 Ibid., 49.

29 Ibid., 25 and 29.

30 Ibid., 55.

31 Ibid, 52.

32 Ibid.

33 *Foundation Document*, 9.

34 *General Management Plan*, 50.

35 Olmsted Center for Landscape Preservation, *Clippings: Replacing Trees in Cultural Landscapes*, 2-3. Steps include: removing bark from the stump; drilling a series of holes 3/4 inch to 1 inch in diameter, 6 inches deep and 2 to 3 inches apart into the stump; filling holes with a mixture of 1 part screened compost, 1 part screened topsoil, and 1 part slow release organic high-nitrogen fertilizer such as feather-meal or cottonseed-meal; keeping the stump moistened during dry periods and re-filling holes as needed with compost/soil/nitrogen mix; removing remaining material with hand tools within 12 to 36 months.

36 "Remarkable Trees of Virginia Project," College of Natural Resources and Environment at Virginia Tech, accessed December 2016, http://web2.cnre.vt.edu/4h/remarkabletree/detail.cfm?AutofieldforPrimaryKey=1614.

37 *Foundation Document*, 9.

38 *General Management Plan*, 46-47.

39 Ibid., 52.

40 The Virginia Department of Forestry sells seedling plant material and should be considered, following proper contracting and purchasing procedures, as a supplier. Additional information is available at: http://dof.virginia.gov/nursery/index.htm.

41 *General Management Plan*, 52.

42 Ibid.

43 *Visitor Information Sign System: VIS and Wayside Hardware Specification Manual* (US Department of the Interior, National Park Service, December 5, 2008), 27.

44 *General Management Plan*, 47.

TABLE 2: SUMMARY OF LANDSCAPE TREATMENT TASKS	
Task ID	**Task**
Spatial Organization	
SO-1	Clear non-historic, successional woodland growth to support visitor understanding of the Crater Battlefield
Buildings and Structures	
BL-1	Preserve battle-era earthworks and defensive and circulation features through vegetation management
BL-2	Relocate Gowen Monument to mark location of Union Fort Morton
Land Use	
LU-1	Support NPS landscape preservation of the "Flagship Inn" parcels abutting park
Circulation	
CR-1	Rebuild Crater east overlook
CR-2	Extend new accessible route to USCT rallying point
CR-3	Improve maintenance access-way to acreage between Poor Creek and the railroad line
CR-4	Develop pedestrian trail to connect to future routes through Civil War Preservation Trust parcel north of present park boundary
Vegetation	
VG-1	Add understory plantings to screen adjacent, contemporary development outside park (related task, SO-1)
VG-2	Add stream corridor buffer planting and thicket planting on steep slopes in proposed cleared area north of Crater (related task, SO-1)
VG-3	Manage woody vegetation over mine tunnel, at the Crater, and at the trench cavalier to preserve resources and enhance the solemnity of the site
VG-4	Design new plantings at Crater environs in enhancement to the solemnity of the site
VG-5	Design new plantings at the Massachusetts Monument and visitor parking area
VG-6	Convert portion of meadow to woodland south of tour road
Small-scale Features	
SSF-1	Replace failing post and rail fence with rope stakes around the Crater and trench cavalier perimeter walk
SSF-2	Remove brick pedestals and install NPS "low-profile" interpretive waysides
SSF-3	Present viable alternatives for marking missing or interrupted battle-era earthworks

TABLE 3: GLOSSARY OF RELEVANT FMSS WORK TYPES AND SUB-TYPES		
Work Type/ Sub-Type	**Definition**	**Key**
Facility Maintenance Work Type		
Facility Maintenance	Day-to-day activities, as well as the planned work required to preserve an asset in such a condition that it may be used for its designated purpose over its expected life cycle. Examples include routine replacement of HVAC filters, repairing a roof that was damaged in a storm, and building a ramp to meet accessibility laws.	FM
Relevant Facility Maintenance Sub-types		
Component Renewal	The planned replacement of a component or system that will reach the end of its useful life based on condition and life cycle analysis within the facility's lifetime.	CR
Demolition	Removal of an asset that has been determined to be unsafe or no longer meets mission goals. Removal of an NPS asset is determined by management in conjunction with NPS planning procedures.	DEM
Deferred Maintenance	Maintenance that was not performed when it should have been, or was scheduled and was put off or delayed. Continued deferment of maintenance will result in deficiencies.	DM
Legislatively Mandated Accessibility	Deficiencies that must be corrected in response to regulatory requirements. These activities include retrofitting for accessibility.	LMAC
Preventative Maintenance	Regular scheduled periodic maintenance activities (within 1 year) on selected equipment.	PM
Recurring Maintenance	Work activities that recur based on normal wear patterns on a periodic cycle of greater than 1 year and less than 10 years. Typical work includes painting, caulking, sealing, carpet replacements, etc.	RM
Facility Operations Work Type		
Facility Operations	Work activities performed on a recurring basis related to the normal performance or function of an asset throughout the year which intends to meet daily operational needs and activities for which a facility or item of Installed Building equipment (IBE) is intended to be used. Typical work performed under operations includes janitorial and custodial services, snow removal, purchase of utilities (water, sewer, electricity), grounds keeping, waste management, etc.	FO
Relevant Facility Operations Sub-type		
Grounds Care	Official definition forthcoming from the FMSS Maintained Landscape Work Group, but likely to capture short-timed tasks performed in the landscape that are required to meet daily operational needs, such as sweeping, raking, and dead-heading.	GC
Capital Improvements Work Type		
Capital Improvements	Alterations or new construction that helps an asset better meet its intended purpose. Examples include paving an unpaved parking area and replacing portable restrooms with a permanent facility in a frequently visited area.	CI
Relevant Capital Improvements Sub-type		
Alterations	Changes to interior arrangements or other physical characteristics of an existing facility or installed equipment so it can be used more effectively for its currently designated purpose or adapted to a new use. Includes work referred to as improvement, conversion, remodeling, and modernization.	AL
Legislatively Mandated Accessibility	Deficiencies that must be corrected in response to regulatory requirements. These activities include retrofitting for accessibility.	LMAC
New Construction	Construction that adds to the existing footprint of an asset, or creates a new asset.	NC

TABLE 4: LANDSCAPE TREATMENT TASKS AND THE CRATER BATTLEFIELD FMSS HIERARCHY

CLR Treatment Task/FMSS Work Order	CLR Treatment Task Component/FMSS Task	Units of Material	FMSS Asset Type	FMSS Location	FMSS Asset	FMSS Work Type/ Sub-Type	Recurring Maintenance Needed
Spatial Organization							
SO-1: Clear non-historic, successional woodland growth to support visitor understanding of the Crater Battlefield	1. Remove non-historic, successional woody vegetation north of the Crater	19.89 AC	Maintained Landscapes (3100)	EF: Grounds at Crater Battlefield North / CCA (236128)	Land Surface (1270873) change asset to turfgrass	FM / DM	Overseed turf
	2. Seed cleared area north of the Crater	19.89 AC					
	3. Remove non-historic, successional woody vegetation northeast of Crater parking area	0.12 AC		EF: Grounds at Crater & Mine Tunnel (21810)	Turfgrass (1059865)		
	4. Seed cleared area northeast of Crater parking area	0.12 AC					
	5. Remove non-historic, successional woody vegetation southwest of Poor Creek	0.46 AC		EF: Grounds at Crater & Mine Tunnel (21810)	Turfgrass (1059865)		
	6. Seed cleared area southwest of Poor Creek	0.46 AC					
	7. Remove non-historic, successional woody vegetation at site of Fort Morton	1.75 AC		EF: Grounds at Fort Morton (21809)	Turfgrass (1059878)		
	8. Seed cleared area at site of Fort Morton	1.75 AC					
Buildings and Structures							
BL-1: Preserve battle-era earthworks and defensive and circulation features through vegetation management	1. Remove trees greater than 6-inches diameter at breast height	Unknown quantity, verify in field	Fortifications (7300)	EF: Federal Battery XVI (22788) EF: Federal Bombproofs (22793) EF: Federal Zig Zag Trench (22787) EF: Baxter Road Trace (22768)		FM / DM	
BL-2: Relocate Gowen Monument to mark location of Union Fort Morton	1. Develop engineered subbase and construction documents, complete compliance and construction at Fort Morton site	1 LS	Outdoor Sculptures / Monuments (7100)	EF: Gowen Monument (22732)		CI / AL	Clean and apply preservation treatments to bronze components
	2. Remove monument from current location and transport and reset at Fort Morton site	1 LS					

TABLE 4: LANDSCAPE TREATMENT TASKS AND THE CRATER BATTLEFIELD FMSS HIERARCHY

CLR Treatment Task/FMSS Work Order	CLR Treatment Task Component/FMSS Task	Units of Material	FMSS Asset Type	FMSS Location	FMSS Asset	FMSS Work Type/ Sub-Type	Recurring Maintenance Needed
Land Use							
LU-1: Support NPS landscape preservation of the "Flagship Inn" parcels abutting park	1. Fee simple acquisition		Maintained Landscapes (3100)	Location record needed (future)	Asset records needed (future)		
	2. Sympathetic third-party purchase or protective easements would not have FMSS implications	N/A	N/A	N/A	N/A	N/A	N/A
Circulation							
CR-1: Rebuild Crater east overlook	1. Remove existing waysides, see task SSF-2	See task SSF-2	Trail (2100)	EF: Crater Loop Trail (45631)	See task SSF-2	FM / CR	Repair or replace defective / failing surfaces
	2. Remove existing bench	1 EA			Bench (442563)		
	3. Remove existing paving	185 SF			Traffic Surface (442561)		
	4. Install new paving	204 SF			Traffic Surface (442561) change area		
	5. Install new benches	4 EA			Bench (442563) change quantity		
	6. Fine grade, loam, and seed	185 SF	Maintained Landscapes (3100)	EF: Grounds at Crater & Mine Tunnel (21810)	Turfgrass (1032103)		
CR-2: Extend new accessible route to USCT rallying point	1. Minor grading	1 LS	Trail (2100)	Location record needed (future)		FM / LMAC	Repair or replace defective / failing surfaces
	2. Install trail surfacing	4,188 SF					
CR-3:Improve maintenance access-way to acreage between Poor Creek and the railroad line	1. Add curb cut on Park Tour Road	12 LF	Road (1100)	EF: Siege Road (22461)		FM / CR	Replenish aggregate surfacing
	2. Remove woody vegetation	Selective, verify in field		Location record needed (future)			
	3. Install compacted aggregate surfacing	616 LF					
CR-4:Develop pedestrian trail to connect to future routes through Civil War Preservation Trust parcel north of present park boundary	1. Complete archeological survey	1 LS	Trail (2100)	Location record needed (future)		CI / NC	Replenish trail surfacing
	2. Minor grading	1 LS					
	3. Install new trail surfacing	1,412 LF					

TABLE 4: LANDSCAPE TREATMENT TASKS AND THE CRATER BATTLEFIELD FMSS HIERARCHY

CLR Treatment Task/FMSS Work Order	CLR Treatment Task Component/FMSS Task	Units of Material	FMSS Asset Type	FMSS Location	FMSS Asset	FMSS Work Type/ Sub-Type	Recurring Maintenance Needed
Vegetation							
VG-1: Add understory plantings to screen adjacent, contemporary development outside park	1. Gee House site parcels	Selective, across 20,330 SF	Understory planting to be in un-maintained wooded areas	N/A	N/A	N/A	N/A
	2. Northwest of Cornfield Battery	Selective, across 46,096 SF					
	3. South of Federal Zig Zag Trench	Selective, across 16,340 SF					
VG-2: Add stream corridor buffer planting and thicket planting on steep slopes in proposed cleared area north of Crater	1. North of Crater	5.35 AC	Maintained Landscapes (3100)	EF: Grounds at Crater Battlefield North / CCA (236128)	Asset record needed for thicket / buffer planting	FM / DM	Remove or prune back vegetation exceeding a height of ten to fifteen feet
	2. Poor Creek	1.77 AC		EF: Grounds at Crater & Mine Tunnel (21810)	Asset record needed for thicket / buffer planting		
	3. West of Norfolk Southern Railroad	1.88 AC		EF: Grounds at Crater & Mine Tunnel (21810)	Asset record needed for thicket / buffer planting		
VG-3: Manage woody vegetation over mine tunnel, at the Crater, and at the trench cavalier to preserve resources and enhance the solemnity of the site	1. Remove trees growing directly over mine tunnel	3 EA	Maintained Landscapes (3100)	EF: Grounds at Crater & Mine Tunnel (21810)	Turfgrass (1032103)	FM / DM	
	2. Monitor large Southern red oak growing over mine tunnel	1 EA		EF: Grounds at Crater & Mine Tunnel (21810)	Asset record needed		Best management practices directed by certified arborist
	3. Monitor Eastern redcedars growing on Trench Cavalier	16 EA		EF: Cavalier Line (22785)	Asset record needed		
VG-4: Design new plantings at Crater environs in enhancement to the solemnity of the site	1. Plant deciduous trees, mulch below	27 EA	Maintained Landscapes (3100)	EF: Grounds at Crater & Mine Tunnel (21810)	Asset record needed	CI / NC	Prune trees

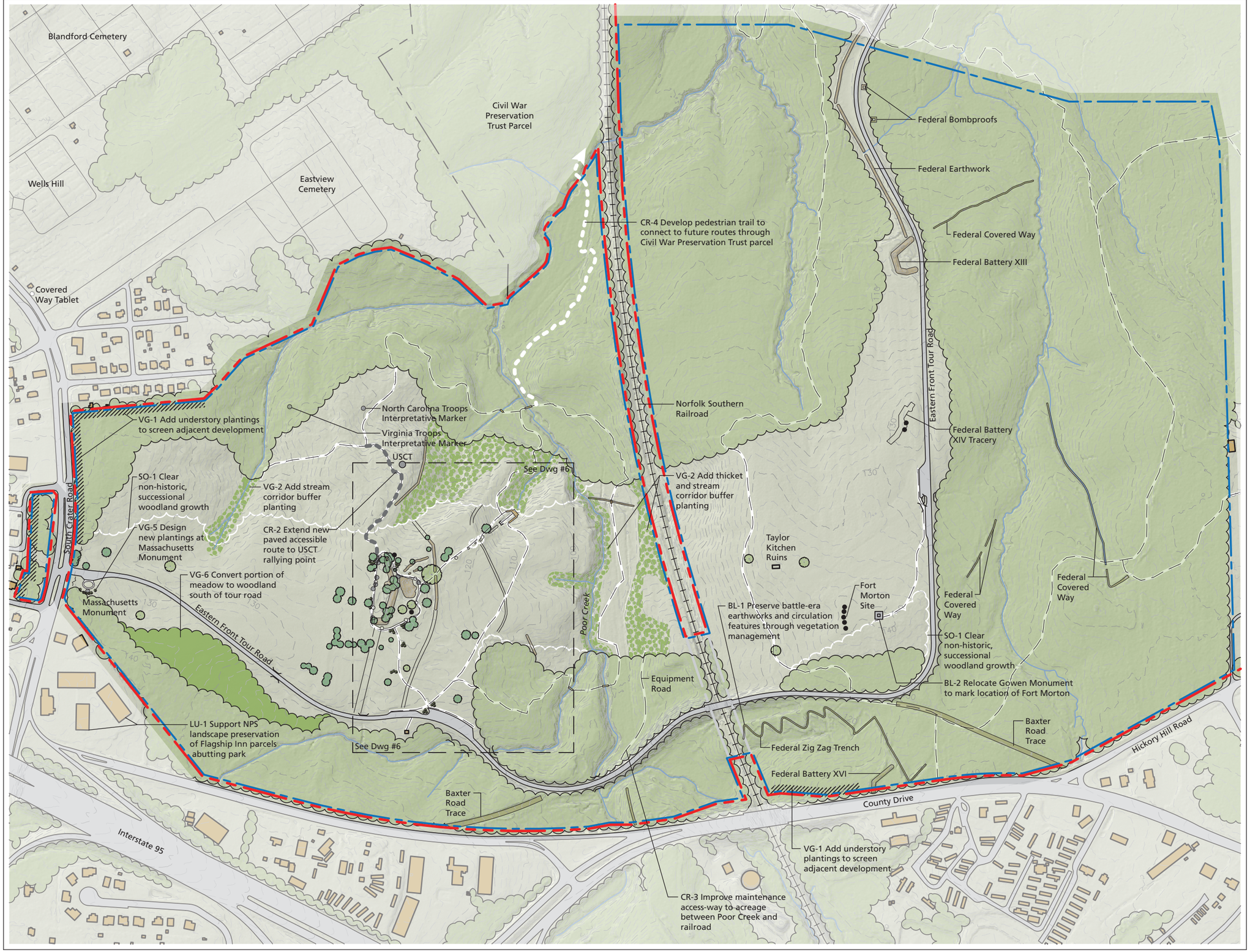
TABLE 4: LANDSCAPE TREATMENT TASKS AND THE CRATER BATTLEFIELD FMSS HIERARCHY

CLR Treatment Task/FMSS Work Order	CLR Treatment Task Component/FMSS Task	Units of Material	FMSS Asset Type	FMSS Location	FMSS Asset	FMSS Work Type/ Sub-Type	Recurring Maintenance Needed
VG-5: Design new plantings at the Massachusetts Monument and visitor parking area	1. Plant deciduous trees, mulch below	6 EA	Outdoor Sculptures / Monuments (7100) or Maintained Landscapes (3100)	EF: Massachusetts Monument (22463) or EF: Grounds at Tour Road Exit & Crater Battlefield (22462)	Asset record needed	CI / NC	Prune trees
VG-6: Convert portion of meadow to woodland south of tour road	1. Allow vegetative succession or plant seedlings / saplings	3.15 AC	Maintained Landscapes (3100)	EF: Grounds at Tour Road Exit & Crater Battlefield (22462)	Turfgrass (1059911) Remove converted area from turfgrass asset		
Small-scale Features							
SSF-1: Replace failing post and rail fence with rope stakes around the Crater and trench cavalier perimeter walk	1. Remove existing post and rail fence	301 LF	Trail (2100)	EF: Crater Loop Trail (45631)	Fence (442562)	FM / DEM	Replace damaged rope and/or stakes
	2. Install rope stakes	950 LF					
SSF-2: Remove brick pedestals and install NPS "low-profile" interpretive waysides	1. Remove brick pedestals	3 EA	Interpretive Media (7500)	IM: Eastern Front / Main Unit Waysides (240711)	Waysides (1244308, 1244314, 1244325)	FM / DEM	Touch-up finish surface as needed
	2. Install NPS "low-profile" interpretive waysides	3 EA					
SSF-3: Present viable alternatives for marking missing or interrupted battle-era earthworks	Develop design and construction documents, complete compliance and installation	1 LS	Maintained Landscapes (3100) or Interpretive Media (7500)			CI / NC	Varies based on selected alternative

Cultural Landscape Report

Crater Battlefield
Petersburg National Battlefield
Petersburg, Virginia

Treatment Plan



National Park Service
Olmsted Center for Landscape Preservation
www.nps.gov/oclp

SOURCES

1. Park GIS Files
2. City of Petersburg GIS Files
3. Ortho Imagery, Virginia Geographic Information Network, 2013

DRAWN BY

Tim Layton
AutoCAD and Illustrator CS6, 2017

LEGEND

- Park Boundary
- Project Area Boundary
- Easement
- Approximate Civil War Preservation Trust Property
- Building / Structure
- Forested Canopy
- Removed Non-historic Forested Canopy
- Buffer and Thicket Planting
- Understory Planting
- Earthen Defenses
- Creek / Stream
- Paved Area
- Headwall
- Railroad
- Sidewalk / Trail
- Cannon
- Monument / Marker
- Tablet
- Worm Fence
- Post & Rail Fence

NOTES

1. Projection: Virginia State Plane, South Zone, NAD 83 HARN, Feet
2. Contour Interval = 2’-0”
3. All features shown in approximate scale and location

0’ 100’ 200’ 400’

Drawing 5

Confederate Tracery
PA Volunteers Flank Marker
PA Volunteers Heavy Artillery Monument
Commemorative Crater Monument
PA Volunteers Flank Marker
SO-1 Clear non-historic, successional woodland growth to support visitor understanding of the Crater Battlefield
Crater Loop Trail
SSF-1 Replace failing post and rail fence with rope stakes
Mahone Monument
Mahone's Brigade Monument
Trail
Well House Foundation
VG-4 Design new plantings at Crater environs in enhancement to the solemnity of the site, typical
VG-3 Manage woody vegetation at trench cavalier, typical
Mine Tunnel Loop Trail
Comfort Station
Confederate Trench Cavalier
South Carolina Monument
The Crater
Confederate Counter Mines
Crater of the Mine Monument
CR-1 Redesign Crater east overlook
Confederate Covered Way?
Confederate Picket Line Tracery
Confederate Picket Line Tracery
VG-5 Design new plantings at Massachusetts Monument and visitor parking area
Confederate Picket Line
Confederate Picket Line
VG-3 Manage woody vegetation over mine tunnel
Surface Depression of Mine Tunnel
Mine Tunnel Loop Trail
Mine Tunnel
120
VG-3 Manage woody vegetation over mine tunnel
Union Picket Line Tracery
VG-2 Add stream corridor buffer planting and thicket planting
Union Picket Line Tracery
Trail
Surface Depression of Mine Tunnel
100
Entrance to the Mine Monument
SSF-2 Remove brick pedestal and install NPS low-profile interpretive waysides
110
Trail
Poor Creek
VG-2 Add stream corridor buffer planting and thicket planting
SO-1 Clear non-historic, successional woodland growth to support visitor understanding of the Crater Battlefield
SO-1 Clear non-historic, successional woodland growth to support visitor understanding of the Crater Battlefield
Bridge

Cultural Landscape Report

Crater Battlefield
Petersburg National Battlefield

Petersburg, Virginia

Treatment Plan
Crater Detail

National Park Service
Olmsted Center for Landscape Preservation
www.nps.gov/oclp

SOURCES

1. Park GIS Files
2. City of Petersburg GIS Files
3. Ortho Imagery, Virginia Geographic Information Network, 2013

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LEGEND

- Building / Structure
- Forested Canopy
- Removed Non-historic Forested Canopy
- Buffer and Thicket Planting
- Earthen Defenses
- Creek / Stream
- Paved Area
- Headwall
- Sidewalk / Trail / Footpath
- Cannon
- Monument / Marker
- Wayside
- Rope Stake Fence

NOTES

1. Projection: Virginia State Plane, South Zone, NAD 83 HARN, Feet
2. Contour Interval = 2'-0"
3. All features shown in approximate scale and location

0' 25' 50' 100'

Drawing 6

Cultural Landscape Report

Crater Battlefield Petersburg National Battlefield

Petersburg, Virginia

Non-Historic Woodland Removal

National Park Service

Olmsted Center for Landscape Preservation

www.nps.gov/oclp

SOURCES

1. Park GIS Files
2. City of Petersburg GIS Files
3. Ortho Imagery, Virginia Geographic Information Network, 2013

DRAWN BY

Tim Layton
AutoCAD and Illustrator CS6, 2017

LEGEND

- Park Boundary
- Project Area Boundary
- Easement
- Approximate Civil War Trust Property
- Building / Structure
- Forested Canopy
- Earthen Defenses
- Creek / Stream
- Paved Area
- Headwall
- Railroad
- Sidewalk / Trail / Footpath
- Cannon
- Monument / Marker
- Tablet
- Worm Fence
- Post & Rail Fence

NOTES

1. Projection: Virginia State Plane, South Zone, NAD 83 HARN, Feet
2. Contour Interval = 2'-0"
3. All features shown in approximate scale and location

0' 100' 200' 400'

Drawing 7

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U.S. Department of the Interior

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