

VLR 12/7/15
NRHP 2/14/16

United States Department of the Interior
National Park Service

National Register of Historic Places
Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

Historic name: Redoubt #2

Other names/site number: Fort No Name/ Brockman's Fort/ DHR File Number 089-5057/44ST0082

2. Location

Street & number: Old Fort Lane, just south of Stafford Courthouse Road (Route 630) not for publication

City or town: Stafford vicinity

State: Virginia code: VA County: Stafford code: 179 Zip Code: 22554

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1986, as amended, I hereby certify that this nomination request for determination of eligibility meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property meets does not meet the National Register Criteria. I recommend that this property be considered significant nationally statewide locally. (See continuation sheet for additional comments.)

[Signature]
Signature of certifying official/Title

12/29/05
Date

Virginia Department of Historic Resources
State or Federal agency and bureau

In my opinion, the property meets does not meet the National Register criteria. (See continuation sheet for additional comments.)

Signature of commenting or other official

Date

State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that this property is:

- entered in the National Register
 See continuation sheet.

- determined eligible for the National Register
 See continuation sheet.

- determined not eligible for the National Register

- removed from the National Register

- other (explain): _____

Signature of the Keeper

Date of Action

United States Department of the Interior
National Park Service

5. Classification

Ownership of Property

(Check as many boxes as apply)

- private
- public-local
- public-State
- public-Federal

Category of Property

(Check only one box)

- building(s)
- district
- site
- structure
- object

Number of Resources within Property

(Do not include previously listed resources in the count.)

Contributing	Noncontributing	
0		buildings
1 Civil War site		sites
1 Civil War earthworks		structures
0		objects
2		Total

Name of related multiple property listing

(Enter "N/A" if property is not part of a multiple property listing.) N/A

Number of contributing resources previously listed in the

National Register N/A

6. Function or Use

Historic Functions

(Enter categories from instructions)

Category: Defense

Subcategory: Fortification

Current Functions

(Enter categories from instructions)

Category: Vacant / not in use

7. Description

Architectural Classification

(Enter categories from instructions)

No style

Materials

(Enter categories from instructions)

FOUNDATION _____

ROOF _____

WALLS: EARTH

OTHER _____

Narrative Description (Describe the historic and current condition of the property on one or more continuation sheets.)

NOTE: Please see addendum on continuation sheets.

8. Statement of Significance

Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing)

- A Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B Property is associated with the lives of persons significant in our past.
- C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D Property has yielded, or is likely to yield information important in prehistory or history.

Areas of Significance

(Enter categories from instructions)

Archeology: Historic - non-aboriginal

Military

United States Department of the Interior
National Park Service

Criteria Considerations

(Mark "X" in all the boxes that apply.)

Property is:

- A owned by a religious institution or used for religious purposes.
- B removed from its original location.
- C a birthplace or a grave.
- D a cemetery.
- E a reconstructed building, object, or structure.
- F a commemorative property.
- G less than 50 years of age or achieved significance within the past 50 years.

Period of Significance: 1863-1865

Significant Dates

January 1863- July 1863

Significant Person

(Complete if Criterion B is marked above)

Cultural Affiliation

Architect/Builder

Lieut. C.E. Cross, Engineer, U.S. Army

Narrative Statement of Significance

(Explain the significance of the property on one or more continuation sheets.)

NOTE: Please see addendum on continuation sheets.

9. Major Bibliographical References

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS):

- preliminary determination of individual listing (36 CFR 67) has been requested.
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by Historic American Buildings Survey # _____
- recorded by Historic American Engineering Record # _____

Primary Location of Additional Data

- State Historic Preservation Office
- Other State agency
- Federal agency
- Local government
- University
- Other

Name of repository:

10. Geographical Data

Acreage of Property 4.6212 acres

UTM References (Place additional UTM references on a continuation sheet)

USGS Quad: Widewater, VA-MD

Zone 18 Easting: 294260 Northing: 4251870

Verbal Boundary Description (Describe the boundaries of the property on a continuation sheet.)

Boundary Justification (Explain why the boundaries were selected on a continuation sheet.)

NOTE: Please see addendum on continuation sheet.

United States Department of the Interior
National Park Service

11. Form Prepared By

Name/title: Dr. Thomas C. Mountz, Psy.D., ABPP

Organization _____ Date: August 7, 2005

Street & number: 340 Hope Road Telephone: (540) 720-0899

City or town: Stafford State: VA Zip Code: 22554

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps

A **USGS map** (7.5 or 15 minute series) indicating the property's location.

A **Sketch map** for historic districts and properties having large acreage or numerous resources.

Photographs

Representative **black and white photographs** of the property.

Additional items

(Check with the SHPO or FPO for any additional items)

Property Owner

(Complete this item at the request of the SHPO or FPO.)

Name: Dr. Thomas C. Mountz, Psy.D., ABPP

Street & number: 340 Hope Road Telephone: (540) 720-0899

City or town: Stafford State: VA Zip Code: 22554

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 *et seq.*).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Project (1024-0018), Washington, DC 20503.

United States Department of the Interior
National Park ServiceNational Register of Historic Places
Continuation SheetRedoubt #2
Stafford County, Virginia

Section 7 Page 1

SUMMARY DESCRIPTION

Redoubt #2 was the largest of the three Federal defensive fortifications ordered to be constructed in early 1863 to protect the approaches to the Union supply depot at Aquia Creek Landing, Stafford, Virginia. Major General Joseph Hooker, Commanding General, Army of the Potomac (AOP), ordered construction of defensive fortifications to guard the Richmond, Fredericksburg, and Potomac Railroad from Aquia Creek Landing to Stoneman's Switch at Falmouth in front of the Confederate positions at Fredericksburg (Section 7 - Note 1). These fortifications appear to supplement and perhaps reinforce abandoned Confederate defenses from the earlier blockade of the Potomac and Washington, D.C. Redoubt #2 is an earthen field fortification, designed/drawn by Lieut. C. E. Cross, Twelfth Corps Chief Engineer, US Army, that is nearly ninety-five feet square. The fortification is surrounded by a trench/ditch that is approximately ten to sixteen feet wide. The top of the parapet is six to ten feet above the surface of the terre-plein. The depth of the ditch is eight to ten feet below ground level. On the east face, there is a sally port that was eighteen feet wide. The sally port is approached by an earthen incline traversing the east ditch nearly mid-point of the redoubt's wall. The interior supports two gun ramps facing approximately southwest and northwest. There is a large bombproof magazine that is approximately fifteen feet square near the northeast corner. The magazine is approximately ten feet deep and is approached via a labyrinth path. In spite of erosion and time the measurements of the redoubt are very close to those specified in the engineering drawings. The redoubt was constructed on the highest elevation in eastern Stafford County, Virginia and commands a view west to the Stafford Courthouse along Courthouse Road, the lower terrain toward the wharf at Aquia Creek Landing, and for miles up and down the Potomac River. The orders only specified general locations, size, manning, and artillery for each redoubt. The topographical drawings and references to locations are reasonably accurate; however, tactical and strategic location of each earthwork appears subject to terrain and practicability. The defense of the railhead and harbor at Aquia Creek Landing was mandatory to the security of the entire Federal army's eastern campaign and the absolute defenses of Washington, D.C.

Narrative Description

Environment: Redoubt #2 is located in Stafford County, Virginia, on the top of the highest point (250+ feet) in the eastern portion of the county. It has an overlook of the surrounding area that would be considered both strategically and tactically significant to any military operation regardless of period in history. The three redoubts were designated as a defense of the Federal landings and warehouses on Aquia Creek, as well as for the protection of the Richmond, Fredericksburg, and Potomac Railroad that connected the supply depot at Aquia with frontline troops at Fredericksburg. The harbor served the purpose of receiving goods and supplies from the northern states, as well as moving casualties and troops to Washington, Baltimore, and other ports of the Union. Aside from the actual defensive position to protect the wharf and rail line, the elevation of the fort ensures line-of-sight communications for the signal to and from the land forces, the naval forces, and the Federal commanders.

Time period: The area was significant to the United States of America due to the Confederate States of America blockade of Washington, D.C. and the battles at Aquia Creek in late May and early June 1861. From that time until the construction of the redoubt, the Confederates manned and established a pattern of destruction, reconstruction, and final destruction of the Aquia Creek Landing wharf, railroad, and railroad bridges south toward Fredericksburg to prevent these vital lines of communications falling into the Federal use. By the fall of 1862 the Federal Army of the Potomac amassed huge military stores and facilitated the critical logistic water-land-railroad link to the front and facilitated the break-down of the Confederate blockade of Washington, D.C. and Confederate control of the Virginia side of the Potomac River. In the period of time between May 1861 and the early months of 1863, the number of combatants, support personnel, animals, and transfer of troops and casualties kept increasing, perhaps to well over 200,000 personnel. To ensure the

United States Department of the Interior
National Park ServiceNational Register of Historic Places
Continuation SheetRedoubt #2
Stafford County, VirginiaSection 7 Page 2

protection of the wharf and railroad, defensive fortifications were established. The wharf was rebuilt and the railroad and railroad bridges re-constructed. Letters dating to March 30, 1863, between the engineers and Col. S. Williams, Assistant Adjutant General, Army of the Potomac, indicated that Redoubt #2 was to be the largest of the three, built on Stafford Court House Road, and manned by “a garrison of 200 men and two 3-inch guns, with a reserve of 800 men”. The redoubts, with Redoubt #2 occupying the highest and most forward position, would remarkably improve the defenses at Aquia and protect rail supply and access to the front near Fredericksburg. From the camps and supply depot at Aquia Creek, the Federal army launched its campaign on Fredericksburg in December 1862. The Army of the Potomac returned to Stafford County and regrouped and reorganized in preparation of the Chancellorsville campaign in late April and early May 1863. Again, the Army of the Potomac relied on the logistical and supply support at Aquia Creek Landing to prepare for its departure and movement toward Pennsylvania in the Gettysburg campaign in June 1863. The official report of Capt. Lemuel B. Norton, Chief Signal Officer, Army of the Potomac, dated September 18, 1863 stated, “A station of observation was established upon Fort #2 (Redoubt #2), at that place, communicating with the gunboats *Mahaska* and *Freeborn* (lying off the creek, for the purpose of covering the withdrawal of stores and troops), upon which vessels signal parties had been previously stationed. Many messages were sent between these stations, and communication successfully kept up until the night of the 16th (June 14, was the departure date of the Army of the Potomac for the operations into Pennsylvania), when, the object of the flotilla having been attained, the officers rejoined the reserve” (Section 7 – Note 1).

Physical characteristics of Redoubt #2: The engineering drawings dated and signed by Lieut. C. B. Cross, specify the physical size of Redoubt #2 (Section 7 - Note 2). The exterior parapets noted on the drawings, suggest that all of the parapets were approximately ninety-five feet in length. The entire redoubt is surrounded by a trench or ditch that was nearly fifteen feet in width and as deep as ten feet. The east parapet incorporated the sally port across the trench and through the wall of the redoubt. Interior, on the northeast corner, is a bombproof magazine that is approximately 15' x 15' and well over 10' deep. The magazine was surrounded by a raised and protected entrance maze that was most probably covered with logs and sand bags. The southwest corner has a raised gun platform that would have easily supported a 3-inch ordnance rifle, as suggested in the order. The northwest corner also has a raised area that would serve as a platform for another piece of field artillery. There is no evidence of foundations or building structures on the terre-plein within the walls of the redoubt. These drawings comply with the orders from the commanding general and appear to have been in accordance with the instructions found in the Dennis H. Mahan's *A Complete Treatise on Field Fortifications*, appropriate engineering field manual for constructing field fortifications (Section 7 Note 3). The official orders from Chief Engineer C.B. Comstock suggested that a working party of 1,500 men should be required to complete the works on the redoubts.

In the past decade, there have been several major hurricanes and tropical storms that have passed over the redoubt, with winds and rains resulting in the felling of many trees around the fortification. The post Civil War trees immediately around and in the actual fortification have suffered weathering and some have been removed to protect the fragile infrastructure of the walls. It is interesting that, despite heavy hurricane rains, no water has stood or collected in the fort or bombproof, and there has been minimal pooling in the trench. There is indication of French drain structures below the terre-plein. While several crossing indentations that may contain drains on the floor of the redoubt have not been explored, there have been two pieces of very large terra cotta drainpipes and elbows found in the bottom of the magazine. Mahan, in his *Treatise on Fortifications*, was specific in his pre-war instructions on the need for good drainage. Evidence of similar drainage systems in fortifications have been found in similar military fortifications built by Romans nearly 2,000 years ago.

United States Department of the Interior
National Park ServiceNational Register of Historic Places
Continuation SheetRedoubt #2
Stafford County, VirginiaSection 7 Page 3

The existing cross-section of each parapet of Redoubt #2 is very close to those specified on Lieut. Cross's 1863 drawings. Additionally, the recent locating of Redoubt #3, by Clifton A. Huston, principal archaeologist of Engineering Consulting Services (ECS) Ltd., and subsequent archaeological exploration of its trench, suggests that the construction was maintained very close to the Lieut. Cross drawings. The Redoubt #2 profile of the trench and parapet shows an interior slope of about six feet from the terre-plein to the top. The depth of the trench is at some places as much as ten feet, exactly as drawn. The slopes on the parapets are nearly the same angle as the drawing. The width of the trench (generally 15 feet), counterscarp, and glacis, vary, due to the impact of weather and erosion. The entire redoubt construction was affected by significant soil inversion. During the construction of Redoubt #2, topsoil of the trench area was turned first, then layer after layer, conforming to the engineer's instruction, where by the soil at the bottom of the trench became the top of the parapets and glacis. The 1863 top surface of the redoubt is now weathering and shows as pebbles and gravel.

Preservation efforts have been at a maximum level since at least 1993. Consultation with numerous tree services, National Park Service conservation employees, and lawn and property care experts have been useful and beneficial. The efforts to save existing trees, survey out trees that are of danger to the wall, and to keep deadfall from damaging the redoubt's infrastructure have been extensive. Efforts to control erosion have been successful with the planting of creeping red fescue grass seed, blue rug spreading junipers, and many pounds of crown vetch seed. Crown vetch seed was selected due to its significance to Pennsylvania, a state that supplied a significant number of the soldiers stationed at Redoubt #2.

NOTES

1. The U.S. War Department, *The War of the Rebellion: A Compilation of the Official Records of the Union and Confederate Armies, 1880-1901*, known as the ORs, is a 127-volume compilation of orders, reports, and correspondences between government officials, military officers within the chain of command of both warring armies. It provided a means of legally documenting and registering the conduct of the war. The volumes were arranged in nearly chronological order. The ORs are found in many libraries and military research facilities today to assist CW scholars track and scrutinize the activities of the CW. Numerous on-line condensed versions may be found. It is fortunate that the Rappahannock Regional Library and the USMC University Library at Quantico maintain complete sets of all volumes.

2. The National Archives (Drawer 150, Sheet 41) hold the actual drawings by Lieut. C.B. Cross's responses to the orders noted in the ORs by the Commanding General of the Army of the Potomac. The drawings depict Redoubts 1, 2, and 3 as well as the redoubt at Brooke Station and on both ends of the "beanpole and cornstalk" bridge across Potomac Creek. Each drawing gives the redoubt's suggested size, measurements, and cross-section through the entire profile of the elevations of the works. The drawings, by Lieut. Cross, are working documents and may have some variance in the reality of the construction. The construction of a redoubt was considered a "hasty field fortification" requiring hard work and digging by a large number of men and support persons over a very short period. The reliance by both armies, USA and CSA, in Dennis H. Mahan's *Treatise* suggests a belief that these armies were transient and temporary in their positions. In addition, the temporary nature of these field fortifications suggests ease of destruction so as to prevent falling into the hands of the enemy. Fortunately for Stafford County's many other Civil War sites, nature has overgrown and protected the abandoned forts from the elements of nature.

3. In 1832, Dennis H. Mahan was appointed the "professor of military and civil engineering and of the science of war" at the U.S. Military Academy, West Point, New York. He assisted in the organization of Virginia's military academy (VMI) at Lexington, VA. He influenced many of the senior officers and generals that were to fight in the Mexican War and then on both sides of the Civil War. He was most noted for his engineering manuals, and the *Treatise of Field Fortifications, Advanced Guard, and Out Post*. All of his instructions were published as field manuals utilized by both North and South. U.S. military forces throughout the world are currently using many of Professor Mahan's methods and concepts.

United States Department of the Interior
National Park ServiceNational Register of Historic Places
Continuation SheetRedoubt #2
Stafford County, VirginiaSection 8 Page 4

STATEMENT OF SIGNIFICANCE

Atop the highest point in eastern Stafford County, Virginia, situated on 4.6 acres overlooking the confluence of Aquia Creek and the Potomac River, Redoubt #2 is significant as an archaeological and historical resource dating to 1863-1865. A federally constructed defensive fort to protect the wharf and railhead at Aquia Creek Landing, Redoubt #2 is the best naturally preserved Civil War earthworks in Stafford County and maintains full integrity of all of its ramparts, trench, gun ramps, and magazine. The fort with its intact earthworks remains little disturbed except for the natural growth of large trees that have protected it to some degree. The well preserved site is significant under Criterion A for its Civil War military history and under Criterion D for its potential to yield further information about fortifications constructed during the Civil War and the lifeways of its soldiers.

Background History

Redoubt #2 / Fort No Name, has been on a military map of Stafford County, Virginia, as a "fort" since October 31, 1864. Captain A. H. Campbell, CSA, by order of Major General J. F. Gilmer, Chief of the Engineer Bureau, Confederate States of America (CSA) drew the map most probably to represent Union fortifications and existing local residents (Section 8 – Note 1) (Attachment A). The Federal orders to construct three defensive redoubts to protect the Aquia Creek Landing was issued in early February 1863 by Major General Joseph Hooker, Commander, Army of the Potomac (AOP), US Army. Lieut. Cyrus B. Comstock, Chief Engineer, AOP, supervised the engineering, construction and manning of the three redoubts. He designated the three--Redoubt #1, Redoubt #2, and Redoubt #3. The engineers and soldiers of the Army of the Potomac, Twelfth Corps, commanded by Major General Henry Slocum, affected the planning and construction of the redoubts. Lieut. C.E. Cross drew the working plans and directed the construction of the three redoubts. The *Official Orders* clearly indicate the location, manning, and disposition of each redoubt. Redoubt #2 was to be forward, most western, and between the other two. The distance between each redoubt was less than one mile.

The American Civil War is undoubtedly a significantly important point in the history of Stafford County, Virginia, and the United States. The hill on which Redoubt #2 rests witnessed many colonial military actions, including Captain John Smith's survey of Quiyough Creek (translated "tall or high land") (Aquia Creek) in 1608 (Haile, 1998) (Section 8 – Note 2), as well as the skirmishes of Brent's War of 1661 and Bacon's Rebellion of 1676 (Eby, 1997). During the War for Independence, General George Washington and French Commander Rochambeau frequently passed through the area, within three miles of Redoubt #2, while en route between the northern colonies and the Virginia capital in Williamsburg. The combined American and French armies traveled routes, by both land and the Potomac River, in the area of the redoubt in 1781 on their way to Yorktown and the ultimate surrender of the British. In the 1790s, President George Washington and Pierre L'Enfant drew on the limestone quarries of Aquia Creek's Government Island to provide the stone for our nation's Capitol Building, White House, and Treasury Building (Conner, 2003). Soon after the birth of the Confederacy in April 1861, Virginia and other Confederate forces established a blockade of the Union capital, Washington, D.C., along the Potomac River. The Confederate blockade of the Potomac required building numerous trenches, gun emplacements, and fortifications all along the Virginia (western) bank of the Potomac River and the numerous rivers and creeks. Of great significance to the Confederate blockade were the railroad-steamboat terminal and the wharf at Aquia Creek Landing. The Confederate blockade and occupation of Stafford and the Aquia Landing was seriously reduced in the Battle of Aquia Creek in May 1861. The Aquia Creek battle was the first naval action of the Civil War (Wills, 1975). After the battle, and over the next year, the Confederate troops withdrew and significantly damaged many of the defenses. The capture of the wharf area by the Union troops allowed for the collection of logistical stores and wharf development at Aquia Creek Landing permitting virtually free transport of military supplies, equipment and men from the entire east coast and especially a water-link between Baltimore and Washington, D.C. It also maximized the

United States Department of the Interior
National Park ServiceNational Register of Historic Places
Continuation SheetRedoubt #2
Stafford County, VirginiaSection 8 Page 5

military transportation and logistic significance of direct access to the Fredericksburg area and south to Richmond utilizing the Potomac and the Richmond, Fredericksburg, and Potomac Railroad (Musselman, 1995) (Conner, 2003).

Carl Von Clausewitz, in *On War*, notes the importance of high ground and terrain when considering both strategic and tactical warfare (Section 8 – Note 3). The site and construction of Redoubt #2 complies with the intent of Von Clausewitz, and the directions of Dennis H. Mahan's (1836), *A Complete Treatise on Field Fortifications*, which contained the current regulations for field fortifications for both the Union and Confederate armies. Situated on one of the highest points in eastern Stafford County, at over 250 feet above sea level and positioned on a peak surrounded by deep ravines to the south and west, the location of Redoubt #2 is exceptional as a strategic military position.

At the time of the construction of the redoubt, it would be a safe assumption there were few trees in the immediate area of the site. Discussions with long time Stafford residents support the lack of trees in the area into the 1930s. The deforestation of the county in the late 18th century, to support iron mills, charcoal production, and general agriculture was significantly compounded by the requirements for wood products by the very large Army of the Potomac, encamped in Stafford County. Considering that no trees obstructed the view from the site selected for Redoubt #2, this permitted an optimal observation point. The rolling plain to the east falls away to the northeast to the Aquia Creek. Looking east, down the east-west flowing Potomac River, one can easily see Mathias Point and perhaps the present US Route 301 Bridge, linking Virginia and Maryland. Directly west, the redoubt is in line with Madison, Virginia. The foothills and peaks of the Blue Ridge Mountains are within easy view. To the north and up the Potomac River, the vast open and wide expanse of the river, may allow, on a clear day, a view of Mount Vernon, only twenty-one miles away.

James Porter Stewart, a sergeant in Knap's Battery E, Pennsylvania Light Artillery, commented in a February 1863 letter to his mother, that this is the "beautifullist (sic) camp we have been in yet. I can see for miles up and down the Potomac. Vessels coming and going, under full sail and others with a full head of steam driving ahead, giving an occasional puff of their whistles . . . it's grand I tell you." (Brady, 1992)

The area around the Redoubt #2 site is where the Twelfth Corps, the smallest corps in the Army of the Potomac, was located. This corps maintained only about 25,000 men, plus thousands of animals, including horses, mules, and beef cattle. The Twelfth Corps is exceptionally unique in its service. Major General Henry Slocum, U.S. Army, commanded the Twelfth Corps. The corps was comprised of soldiers, infantry, artillery and cavalry, as well as all forms of support soldiers, farriers, bakers, cooks, teamsters, wagoners, and a variety of other workers. The Twelfth Corps had soldiers from all of the Union states, with Pennsylvania, New York, and Ohio, appearing to have supplied the majority of troops. The Twelfth Corps fought many of the early battles of the Civil War, including Antietam, Ball's Bluff, and Fairfax, and provided manpower to the protection of Washington in 1861 and 1862. In late November and early December 1862, they were on the way to the Battle of Fredericksburg; however, the decision was made to hold them in reserve in Stafford. The men of the Twelfth Corps were marchers. Initially, just to come to Stafford, the Twelfth Corps soldiers marched from all over the Northern states. They participated in the January 1863 "Mud March", south of Stafford. They fought in the Battle of Chancellorsville in May 1863 and marched to and fought at Gettysburg in July 1863. They were returning to the Stafford area when they were combined with the Eleventh Corps to establish the Twentieth Corps, and then they were ordered to the western theater. They boarded trains in Catlett and Bealeton, Virginia and went through Pennsylvania, Ohio, and Kentucky. They fought their way through many battles in western Tennessee and in northwest Georgia. Southeastward they marched and fought around Atlanta. They secured the Atlanta area and continued toward Savannah, Georgia, for Christmas 1864. The corps saw action in Columbia, South Carolina; Bentonville and New Bern, North Carolina; and marched north, passing near Petersburg, Richmond, and their "beautifullest camp" in Stafford, Virginia, to complete their grand circle. Thousands of miles on foot, surviving all forms of weather, deprivations, and separations

United States Department of the Interior
National Park ServiceNational Register of Historic Places
Continuation SheetRedoubt #2
Stafford County, VirginiaSection 8 Page 6

from families, the men of the former Twelfth Corps moved on. They suffered significant losses in battle, to disease, and from just being worn out.

In the directions outlined by Dennis H. Mahan (1836), the construction orders for redoubts like Redoubt #2 clearly provide for the rapid and essentially complete return of the fieldworks back into the natural environment. The expected longevity of an earthen fortification was about three to four months without constant care and upkeep. Redoubt #2 has survived over 142 years. It is fortunate that, upon their June 1863 departure, the Union army maintained the area until the end of the war as a continued defense of the Aquia Landing and railroad.

After the Civil War, Stafford County entered a bleak and very unproductive period lasting for eighty years. Stafford County's population census of 1860 was 10,958; in 1870 the population was 7,670; and by 1930 the population had only achieved 10,056. Stafford County had been minimally producing agriculture in 1860, raising corn, wheat, potatoes, rye, and oats. Swine was the most productive livestock with sheep and cattle being second and third in numbers (Musselman, 1995). The county's economic growth and development have certainly caught up in the past several years.

After the Civil War, as in most of the South, the land was scarred from overuse and misuse during the war. While there were no major battles in the area of Redoubt #2, the degradation from the encampments was significant. Houses, sheds, barns, fence, and nearly anything made of wood, were used by the troops for cooking, heating, and daily survival. The Union army left very little. It is not hard to imagine that the remaining citizens quickly seized the wood remaining from thousands of huts and corduroy roads as they tried to rebuild their homes and community. The encampments, by the nature of human usage, would have left significant sanitary problems from human wastes and the remains of animals, all increasing the potential of disease for the Stafford residents. The impact of disease must have been significant. It would be safe to assume that entrenchments and redoubts, with their bombproofs and magazines, quickly became temporary homes for the residents of Stafford County. As noted with Redoubt #2, many of the large trenches, large ramparts, and hut sites became a dumping ground for many local residents, creating a unique historic record of the site.

Thankfully, the years have been kind to Redoubt #2. Most of the camps, huts, trenches, and other redoubts have become victims of progress and development. There are partial remains of small redoubts near the Virginia Railway Express station at Brooke, the south end of the Potomac Creek crossing of the Amtrak Railroad, and at the Confederate Fort McLean, on the Girl Scout Camp property, in Stafford County (Musselman, 1995). There are a few gun emplacements behind the area known as Burnside's Wharf and others located on Marlboro Point Road.

Early Native American sites within view of Redoubt #2 are being threatened as well. It is fortunate past owners have been somewhat protective of Redoubt #2, the last survivor of the 1863 Federal defensive works of Aquia Creek. In April 2005, Redoubt #3 fell, removed in a housing development project. Fortunately, with the support of the Commonwealth of Virginia and the property developer, many dedicated local historians and Clifton A. Huston, principal archaeologist of Engineering Consulting Services, were able to locate, document, study and attempt preservation of the trench of Redoubt #3. Redoubt #2 is the sole survivor, and it deserves preservation and elevation to a place honoring those that lived and died in this county during the Civil War.

In a site visit in 1993, Dale E. Floyd, a retired field fortification expert, US National Park Service, suggested that Redoubt #2 was an exceptional specimen of Civil War fortifications. Particular note was made about the excellent preservation of the parapet and how it conformed to the existing redoubts throughout the United States.

Douglas Harvey and John Imlay, members of the Northern Virginia Chapter of the Archeological Society of Virginia, wrote a detailed archaeological report on the investigations they had accomplished at the redoubt in the fall of 1981. They

United States Department of the Interior
National Park ServiceNational Register of Historic Places
Continuation SheetRedoubt #2
Stafford County, VirginiaSection 8 Page 7

were impressed with finding pre-historic Archaic and woodland artifacts, U.S. Civil War artifacts, and the remains of discarded items from just after the war to the time of the report. The report suggests that there have been two, perhaps more, very distinct and significant historical uses of this site. The one for which there is a good deal of historical information and for which there is good, physical evidence is the Civil War- period fort. The study collected and inventoried many of the Civil War artifacts that document camp-life and camp duties. Regulation U.S. Civil War period buttons, buckles, musket locks, bottles, lead US .58 cal. bullets, ironware, knives, and other fragments of camp utensils were found within the trench and redoubt itself. The other is the prehistoric activity for which the best evidence are the artifacts were discovered during the Harvey/Imlay investigation of the site. Quartz flakes and debris, projectile points, and woodland pottery discovered during the investigation point to Indian occupation that began as early as 6,000 years ago and which lasted into the Woodland period, ending about 1,000 years ago. The extensive investigation clearly suggests its historical archaeological value. They also indicated the quality of the natural preservation of the site. Mr. Harvey has stated, in a personal interview at his offices at the Tredegar Ironwork Museum in Richmond, his enthusiasm for the continued preservation and investigation of the extended significance of the site. (Section 8 – Note 4)

In 1973, Dr. Peter Skirbunt wrote an undergraduate research paper at The Ohio State University. In the report, he clearly defines the actions around Aquia Creek Landing during the Civil War and the conditions of the defensive fortifications. (Section 8 – Note 5)

Carter L. Hudgins, Director and Woodard Professor, Mary Washington College Center for Historic Preservation, wrote in a letter to Mark King of the Stafford County Architectural Review Board, 5 October 1992, “This tract contains, as you well know, the well-preserved remains of an un-named Civil War era fortification constructed by Federal troops as a part of their defenses of Aquia Creek Landing”. (Section 8 – Note 6)

As the result of a site visit in May 2005, Mr. Clifton A. Huston wrote to Dr. Tom Mountz, the current owner, that the Federal Redoubt #2 is in excellent condition, with intact rampart walls, trench, and surrounding campsites. “In my opinion, this is the best-preserved example of a hasty field fortification that I have seen. It is remarkable that the scarp walls and the parade ground are in excellent condition, and this fort stands as an outstanding example of Civil War-era engineering”. (Section 8 – Note 7)

Stafford County is not known for the killing fields of battle. It was the home of thousands of soldiers, sailors, and support persons away from home, surviving under the most desperate of situations. They were living a meager existence, high on promises, short of fulfillment. Their daily lives, in garrison, in huts and tents, on steamers, or on warships in Aquia Creek harbor, put them at risk for disease, hunger, cold, and, in many cases, struggling to survive the mortal wounds suffered on the battlefields of Fredericksburg and Chancellorsville.

Today, the threats to Redoubt #2 do not come from bullets; it is the encroachment of human development that threatens its welfare. There were no apparent battles fought at Redoubt #2. However, every soldier serving there fought his own battle. The remnants of camp life, the personal property of the troops, and the tools of war have long vanished. The site holds the potential to yield important archaeological information. Specifically the site will likely yield information to fort construction methods and the life ways of Civil War soldiers. In light of the archaeological studies completed on Redoubt #3, and the Harvey/Imlay study at Redoubt #2, the studies of the Potomac Village, Washington’s boyhood home at Ferry farm, and the work completed on Government Island, Stafford County is a remarkable area to allow future students of archaeology and history to establish a visible and important time line in our Nation’s history. Stafford County is developing individual museums and historically significant sites for inclusion into the state’s educational standards of learning (SOLs). Numerous camps and earthworks are to be found in many Stafford backyards. Allowing controlled public access to a “real” fort is awe-inspiring. To be able to walk around and experience a return to the Civil War through

United States Department of the Interior
National Park ServiceNational Register of Historic Places
Continuation SheetRedoubt #2
Stafford County, VirginiaSection 8 Page 8

well-planned experiences, such as School of the Soldier activities, field days, musical campfire sessions, and encampments, promotes a respect and love for history and our country's sacrifices. Children, as well as amateur and professional students, can then understand what they may find just outside their homes. The numbers of soldiers in this county during the Civil War has prompted many of their present day relatives to seek where their ancestors may have lived. Most visitors to Redoubt #2 express that there is a need to connect with their past and roots. Allowing visitors to experience Redoubt #2 prompts questions they have about an ancestor in the Federal army as stated in a letter home. Many are willing to share very important personal soldier's comments about their camp life and have allowed access to volumes of sources that to date have been held dearly in the family. The sense of sharing these letters and past experiences appears to be a sense of pride for these people.

The greatest treasure on the site is Redoubt #2 itself. It is a fragile monument in need of protection that invokes a real touch with the past. It allows the visitor to sense through his or her own experience the reality of life at a Civil War fort. Also, it is a monument to the strength of the lives and what it has witnessed. The site has stood the test of time. Redoubt #2 was constructed to provide defensive safety and security to the troops temporarily calling Aquia Creek Landing and Stafford County home. Mr. Eric Mink of the National Park Service stated, "It is truly a wonderful resource and a surviving piece of Stafford County's history, as well as the history of our nation". It has fulfilled its mission as a defensive structure, and today, it remains as a vital learning laboratory and testament to those who came before and a promise to the future that their hardships and lives will not be forgotten.

Research Questions: Research questions that may be addressed by further investigation of Redoubt #2 in these three areas:

- 1. How well did the construction comply with the directives of both Federal and Confederate field fortifications? How was construction adapted to the terrain, local conditions, and defensive strategic needs? Further the initial study of the details of original drawings and determine the existence of a French drainage system. Evaluate how the earthen fortification survived the past one hundred-forty years.**
- 2. What was the nature of daily garrison activities of the Union troops at the fort? What specific units manned the fort? What off-duty activities were utilized between the combat actions of Fredericksburg, Chancellorsville and the march toward Gettysburg?**
- 3. Explore and evaluate if the Redoubt #2 site supports pre-Civil War activities dating to pre-historic Native Americans, the 1608 activities of John Smith along Aquia Creek, and other military campaigns of the colonial period.**

United States Department of the Interior
National Park ServiceNational Register of Historic Places
Continuation SheetRedoubt #2
Stafford County, VirginiaSection 8 Page 9

NOTES

1. The "Gilmer Map of Stafford County, 1864" clearly notes, "fort" at the site of Redoubts # 1 and 2 (Attachment B). Redoubt # 3 is indicated by a small square above the railroad. The map postdated the construction of the Redoubt by more than one year. General Gilmer, Chief Engineer, CSA and Captain Campbell, Engineer, CSA drew maps of exceptional quality and mass-produced them for field use. It is believed, the CSA maps were developed through local intelligence given to the CSA engineers by local Stafford residents. The absence of Confederate forts and camps suggest the Southern troops had knowledge of their existence and locations. The Federal military points would be important for potential activity or escape and evasion by partisans. It certainly indicates that there was clandestine observation and reporting of Union activity in the Aquia Creek Landing area. It appears the map indicated many houses by name and may have served as noting "safe houses" and potential routes to safety for members of the Army of Northern Virginia, CSA.
2. In 1998, Edward Wright Haile drew an enhanced version of the 1608 map of the travels by Captain John Smith clearly indicates that "Quiyough (Aquia)" is on the south side of Aquia Creek very close to the Redoubt #2 location. Captains Smith and Argyll were in the area exploring, trading, and dealing with the Native American Patowomeck Sept their Chief Powhatan and the Princess Pocahontas. The Potomac Creek village at the southeast end of Marlboro Point and Indian Point is within view of Redoubt #2 site and at the end of the overland trail that goes by the redoubt to the mouth of Accokeek Creek near Indian Point. Captain Smith, being a military man, would have sought the highest point serving the best observation of the Potomac River and surrounding creeks.
3. Between 1816 and 1830, Carl Von Clausewitz in *On War* emphasized the importance of terrain in defensive and offensive military actions. "Geography and ground can affect military operations in three ways: as an obstacle to the approach, as an impediment to visibility, and as cover from fire." "This influence is always there." Occupying the high ground serves as the best defense and allows maximum observation of surrounding areas.
4. In 1981, Doug Harvey and John Imlay were requested to do an archaeological study of "fort no name" for the then owner Paul Brockman. They conducted a remarkable study that included surface searches of the redoubt and surrounding area. They performed several "digs" into the terre-plein, trench, and near the sally port and found evidence of very early Native American presence through the construction and occupation of the Civil War fort, to mid-20th century inhabitation of homes actually constructed adjacent to Redoubt #2. The results of the study suggest that Redoubt #2 is a very significant place in local, state, and national History. Many of the artifacts from the study were removed to the Manassas Museum. Their results prompted other archaeologists and local authorities to list the site on the county registry of historic places. Endorsements of the site were a positive outcome of the Harvey study.
5. As early as 1973, Dr. Peter Skirbunt, an undergraduate student at The Ohio State University, wrote a research project on the "Defenses of Aquia Creek". His work brought him to the area of Redoubt #2 on a personal visit when the fortification was very overgrown and generally inaccessible. His writing could be noted as the starting point for the modern study of the redoubts of Stafford County. He explored the importance of the location and situation of the defensive works on the execution of the war.
6. This letter, October 5, 1992, from Mr. Hudgins to Mr. King was to encourage Mr. Brockman and Stafford County into further preservation and study of "fort no name"/Redoubt #2. This letter may have encouraged Mr. Brockman to sell the fort.
7. This is a personal letter from Mr. Clifton Huston, archaeologist, to the present owner, Tom Mountz, about the significance and impressions he had from a site visit to Redoubt #2 and its position in relation to Redoubt #3 in May 2005.
8. This is a personal letter from Mr. Eric J. Mink, US Department of interior, National Park Service, Fredericksburg and Spotsylvania National Military Park, to Dr. Mountz, on his personal visit to Redoubt #2, dated September 7, 2005.

United States Department of the Interior
National Park ServiceNational Register of Historic Places
Continuation SheetRedoubt #2
Stafford County, VirginiaSection 9 Page 10

BIBLIOGRAPHY

- “Along The RF&P - - Aquia Creek Part II.” *Rail-o-gram*. RF&P Railroad, Richmond: Summer, 1978.
- Blanton, Dennis B., et al. 1999 *The Potomac Creek Site (44ST2) Revisited*. Research Report Series No.10. Virginia Department of Historic Resources, Richmond, Virginia.
- “Bacon’s Rebellion.” www.nps.gov/colo/Jthanout/BacRebel.html, April, 2005.
- “The Brent Family.” www.virginiaplaces.org/religion/brentfamily.html, April, 2005.
- “Burnside In Frustration/ The Mud March”. www.vectorsite.net/twcw37.html, April, 2005.
- Brady, James P., *Hurray For The Artillery! Knap’s Independent Battery “E”, Pennsylvania Light Artillery*. Gettysburg, PA: Thomas Publications, 1992.
- Conner, Jr. Albert Z. *A History of Our Own: Stafford County, Virginia*. Virginia Beach, VA: The Donning Company Publishers, 2003.
- Cowles, Calvin D. (compiled by) *Atlas to Accompany the Official Records of the Union and Confederate Armies*. Washington, DC: US Government Printing Office, 1891-1895.
- Eby, Jerrilynn. *They Called Stafford Home*. Bowie, Maryland: Heritage Books, Inc., 1997.
- “Field fortification, Chapter V. Manner of Throwing a Work. By D.H. Mahan, (1848).” www.military-info.com/aphoto/Mahan48.htm, May, 2005.
- Floyd, Dale E., comp. *Military Fortifications: A Selective Bibliography*. NY: Greenwood, 1992.
- General Index of Stafford County Court Records, Stafford County Court House, VA.
- Griffin, William E. Jr., *One Hundred Fifty Years Along the Richmond, Fredericksburg, and Potomac Railroad*. Richmond: Whittier and Shepperson, 1984.
- Harvey, Douglas and Imlay, John. *Report on Fort No Name, Aquia Creek Landing, Stafford County, Virginia, Fall 1982*. Unpublished manuscript.
- Johnson, Angus J. *Virginia Railroads in the Civil War*. Virginia Historical Society, 1961.
- “Itinerary of the Army of the Potomac and co-operating forces, June 5-July 31, 1863, The Gettysburg Campaign.” <http://www.swcivilwar.com/ItineraryAOPGettys.html>, April, 2005.
- Musselman, Homer D. *Stafford County in the Civil War*. Lynchburg, VA: H.E. Howard, Inc., 1995.
- Mahan, Dennis H. *A Complete Treatise on Field Fortification: With the General Outlines of the Principles Regulating the Arrangement, the Attack, and the Defenses of Permanent Works*. NY: Wiley & Long, 1836, 1846 & 1861.
- “Redoubt.” www.civilwarfortificatiobns.com/dictionary/xgr-015.html, April, 2005.
-

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Redoubt #2
Stafford County, Virginia

Section 9 Page 11

BIBLIOGRAPHY (Continued)

Sketch of the Defenses for the Depot at Aquia Creek. Col. G.H. Biddle, dated June 27, 1862. Virginia State Library.

Sketch of the Redoubts for protection of Aquia Creek. Lieut. C.B. Cross, Chief Engineer, AOP, US Army.
Washington, DC: National Archives, Drawer 150, Sheet 41, 1863.

Skirbunt, Peter D. "Aquia Creek Landing, VA.", Unpublished manuscript, The Ohio State University, 1973.

"SOP for the Department of Engineers." www.bonnieblue.net/Departments/engineers_sop.htm.

Stafford County Court Records, Deeds and Wills Book. Plat Book 13, Page 236, Parcel 32.

"Twelfth Corps." www.americancivilwar.info/searchcorps.asp?searchcorps=Twelfth%20Corps, March, 2005.

U.S.G.S. *Widewater, VA -- Maryland*. 1966, photo revised 1978.

United States War Department. War of the Rebellion: A Compilation of the Official Records of the Union and Confederate Armies. Series I, Volume 51, Part 1, Supplement, pp. 985 and 979; and Series I Volume 25, Part 2, pp. 56, 167, 168, and 169. Washington, DC: U.S. Government Printing Office, 1880-1901.

Viele, Egbert L. *Handbook of Field Fortifications and Artillery, Also Manual for Light and Heavy Artillery*.
Richmond, VA: Randolph, 1861.

Von Clausewitz,, Carl , *On War*. Michael Howard and Peter Paret (Eds.), Princeton, NJ: Princeton University Press, 1976.

Wills, Mary Alice, *The Confederate Blockade of Washington, DC 1861-1862*. Parsons, WV: McClain Printing Company, 1975.

United States Department of the Interior
National Park ServiceNational Register of Historic Places
Continuation SheetRedoubt #2
Stafford County, VirginiaSection 10 Page 12

GEOGRAPHICAL DATA**Verbal Boundary Description**

The accompanying USGS Quad map (Widewater, VA-MD) identifies the specific northing (4251870) and easting (294260) points of reference to Redoubt #2. The nominated property is indicated as "Parcel 32" in Stafford County Plat Book 13, page 236 found in the Stafford County Clerk of Courts office. The plat also indicates an "old fort site". Redoubt #2 has been designated a Stafford County Historical Site and is also locally known as "Fort No Name" and "Brockman's (previous owner Paul Brockman) Fort" (Attachment D).

Boundary Justification

The property nominated for listing includes the entire parcel 32, Plat book 13, page 236 (Attachment D). Redoubt #2 is situated on 4.6212 acres of heavily forested land in eastern Stafford County, Virginia. Aquia Creek is located approximately one mile to the north. The Potomac River is to the east, where the river changes directions from primarily east and west to north and south. The property is "frying pan" shaped to allow access along Old Fort Lane, a gravel road from Stafford Courthouse Road (Route 630) to the redoubt. The redoubt is located on the highest elevation of eastern Stafford County at 250+ feet and sets back from Old Fort Lane approximately one hundred feet. To the south there is a very steep ravine dropping more than 150 feet. The east approach is across an open field with a tree line protecting the east property line. To the immediate north is a private two-story family residence and to the southwest is another private single-level family residence. Neither of these residences is on the redoubt site. The north boundary is through a "well" and is approximately five feet from the edge of the ditch. The north side of the fort faces Aquia Creek less than one mile in the distance down a slope to the water's edge at eight feet of elevation. To the west is continued heavy forestation. Presently, the new growth of trees and forest prohibits clear view of the Landing, mountains to the west and the Potomac River to the east. At the time of construction in 1863 there were virtually no trees standing that would prevent full line of sight and the use of the fort as an observation and signal point for the Army of the Potomac. It appears that the previous owner, Paul Brockman realized the potential of development of the adjacent farm land to the east and when he divided the site he developed a narrow strip of land to protect the site from encroachment.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Redoubt #2
Stafford County, Virginia

Section Photographs Page 13

The following information is common to all photographs:

NAME OF PROPERTY: Redoubt #2, DHR File No. 089-5057/44ST0082, Stafford County, Virginia

PHOTOGRAPHER: Thomas C. Mountz

DATE TAKEN: July 4, 2005

NEGATIVE NUMBER: 22155

LOCATION OF NEGATIVES: Virginia Department of Historic Resources Archives, Richmond, VA

Photo 1 of 10, Frame 2

Exterior - looking east along south trench and south face, southwest point, 8X10 (1), 4X6 (2)

Photo 2 of 10, Frame 3

Exterior – looking north along west trench and west face, southwest point

Photo 3 of 10, Frame 4

Exterior – looking northwest along south trench and south wall

Photo 4 of 10, Frame 5

Exterior – looking north along east trench and east wall, southeast point

Photo 5 of 10, Frame 6

Exterior – looking west along south trench and south wall, southeast point

Photo 6 of 10, Frame 7

Exterior – looking west along north trench and north face, northeast point

Photo 7 of 10, Frame 8

Interior – looking southwest at southwest gun ramp across parade

Photo 8 of 10, Frame 9

Interior – looking northwest across magazine (bombproof)

Photo 9 of 10, Frame 10

Interior – looking southwest at southwest gun ramp

Photo 10 of 10, Frame 11

Interior – looking northwest at northwest gun ramp

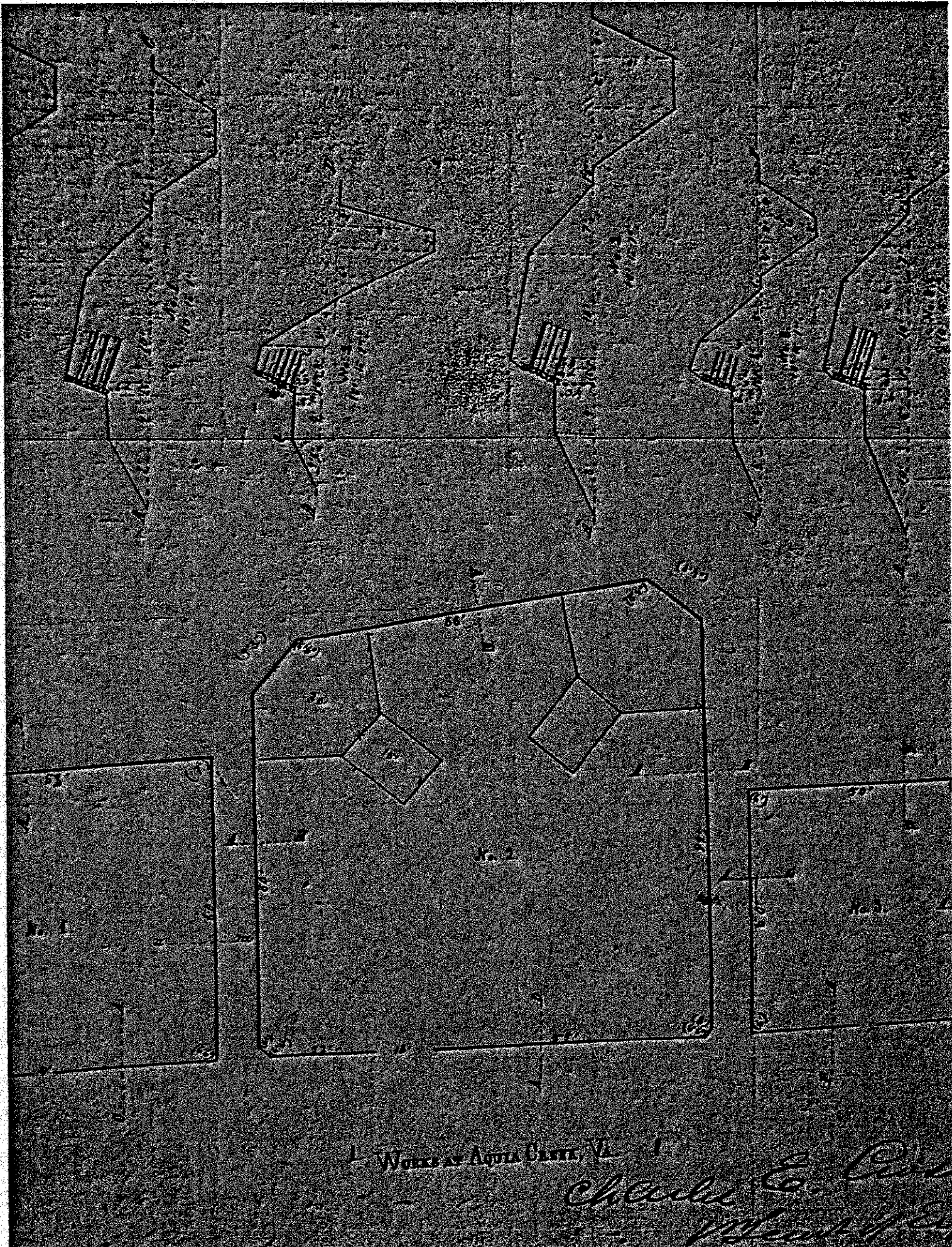
ATTACHMENTS:

A: US National Archives. Engineering drawings by C.B. Cross of the redoubts in Stafford Co. VA, Drawer 150, Sheet 41. 1863.

B: Gilmer, J.F., Major Gen, Chief Engineer, CSA. Map of Stafford Co. VA, 1864.

C: Photo Key Sketch, Not to Scale

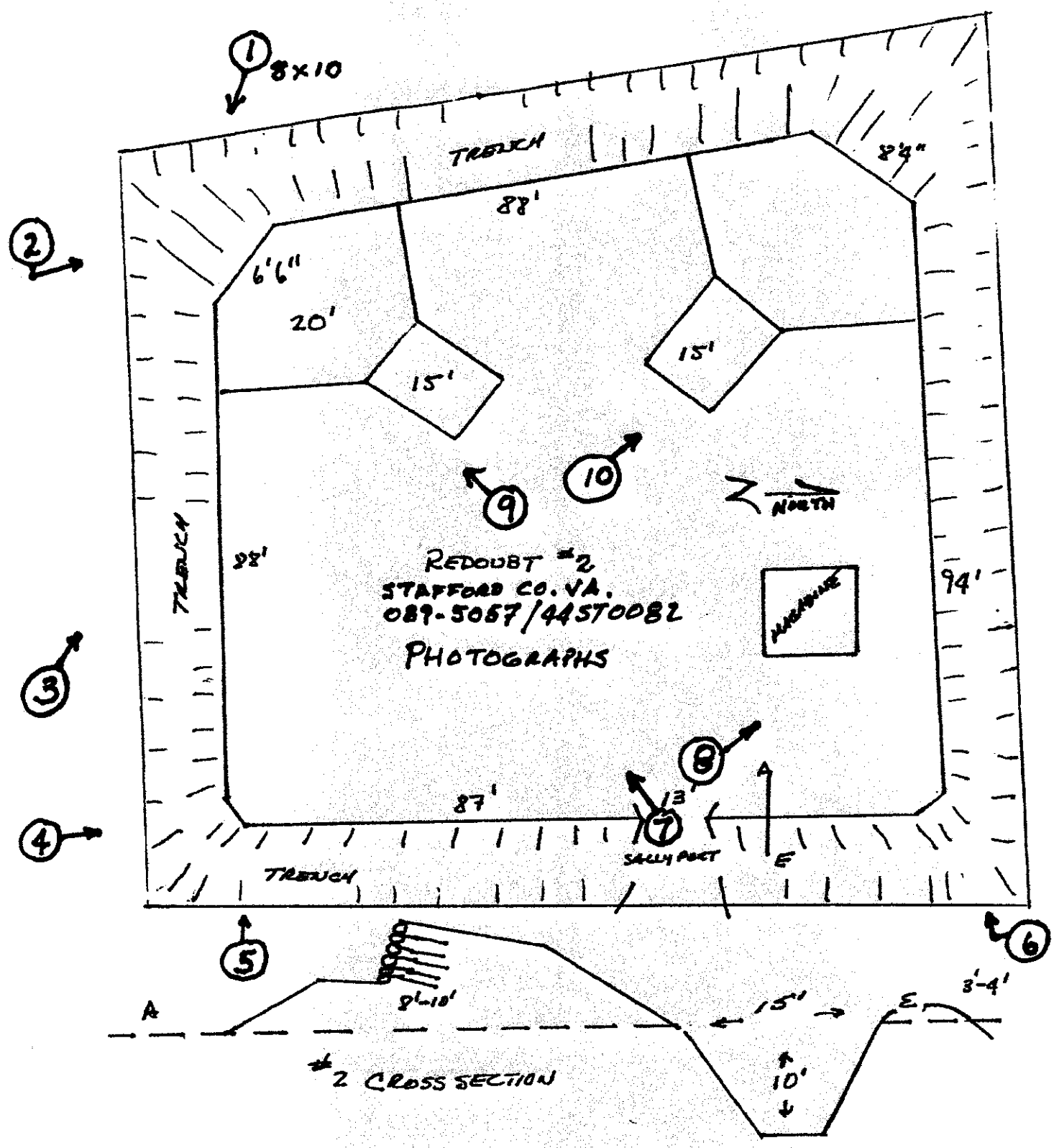
D: Stafford County, VA. *Court Records, Deeds, and Wills Book*. Plat Book 13, Page 236, Parcel 32.



WORKS AT AQUA CLARA, VA

Charles E. ...
Member ...

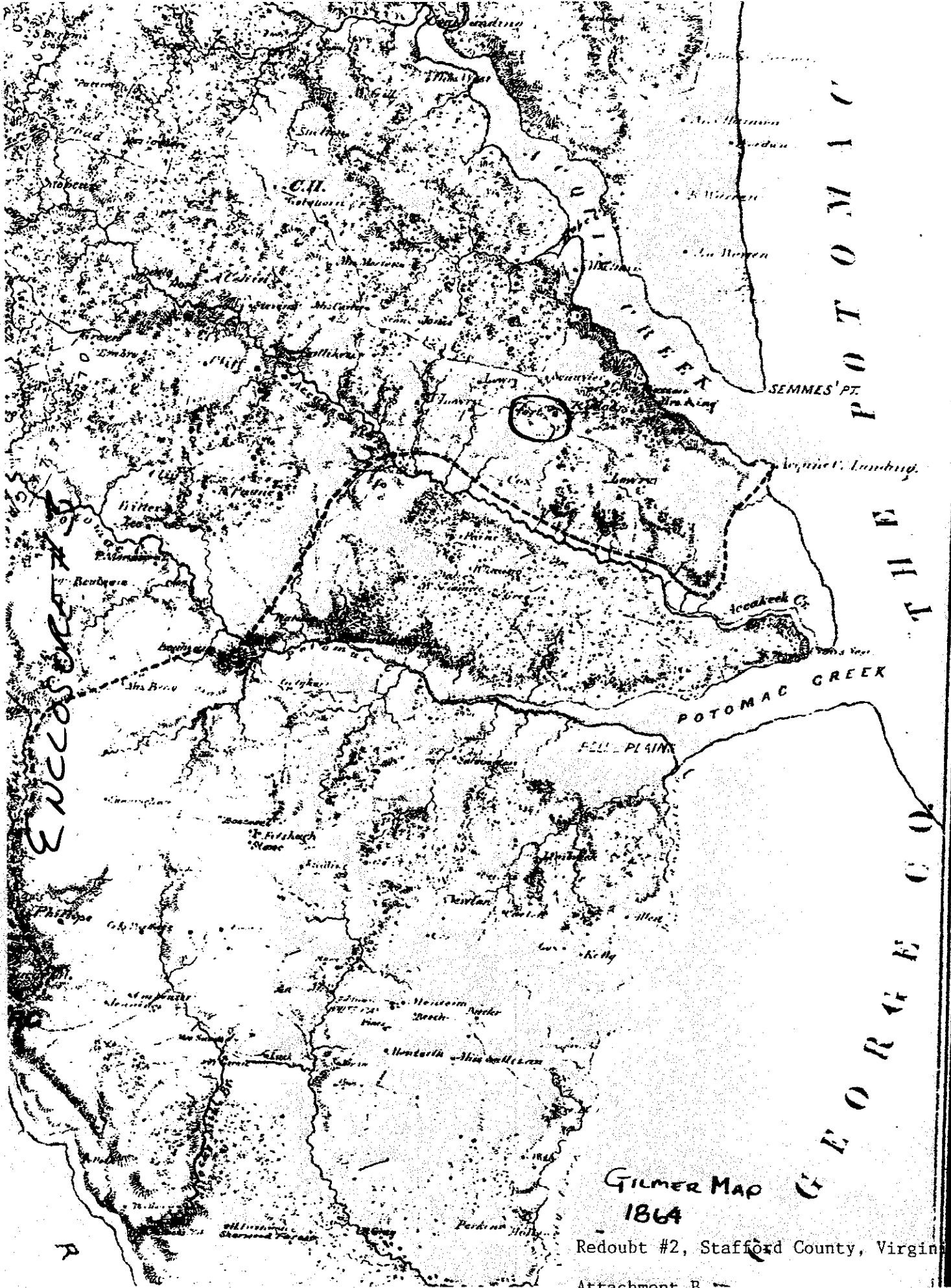
Redoubt #2, Stafford County, Virginia



Redoubt #2, Stafford County

Photograph Angles

ATTACHMENT C: NO SCALE
PHOTO KEY



ENCL. 2

THE POTOMAC

GILMER MAP
1864

Redoubt #2, Stafford County, Virginia
Attachment B

REDBOBT #2
STAFFORD CO, VA
UTMS
ZONE 18

EASTING 294260
NORTHING 4251870



Produced by the United States Geological Survey

Topography compiled 1963. Planimetry derived from imagery taken 1977 and other sources. Photoinspected using imagery dated 1998; no major culture or drainage changes observed. Survey control current as of 1966. Boundaries revised 2001

Bathymetry compiled by the National Ocean Service from tide-coordinated hydrographic surveys. This information is not intended for navigational purposes

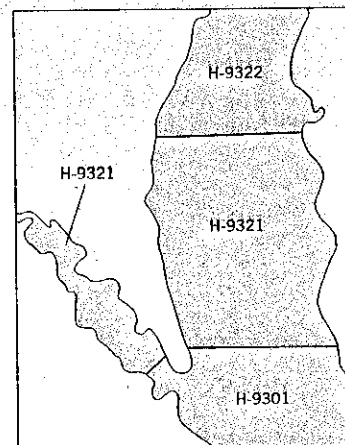
Mean lower low water (dotted) line and mean high water (heavy solid) line compiled by NOS from tide-coordinated imagery. Apparent shoreline (outer edge of vegetation) shown by light solid line

North American Datum of 1927 (NAD 27)
Projection: Virginia coordinate system, north zone (Lambert conformal conic)
10 000-foot ticks: Virginia coordinate system, north zone and Maryland coordinate system
1000-meter Universal Transverse Mercator grid, zone 18

North American Datum of 1983 (NAD 83) is shown by dashed corner ticks. The values of the shift between NAD 27 and NAD 83 for 7.5-minute intersections are obtainable from National Geodetic Survey NADCON software

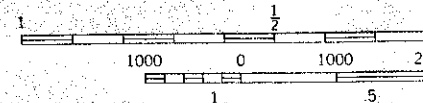
There may be private inholdings within the boundaries of the National or State reservations shown on this map

NATIONAL OCEAN SURVEY
HYDROGRAPHIC SURVEY INDEX



HYDROGRAPHIC SURVEY
INFORMATION

Survey	Survey	Survey	Survey
--------	--------	--------	--------



CON
NATIONAL G
BATHYMETRIC CONTOU
0.5 METER CONTOU
THE RELATIONSH
THE MEAN RAN
TO CONVERT FRO

BASE MAP COMPI
BATHYMETRIC SURVEY
ORGANIZATION (IHC
AND/OR STAN