

National Park Service  
U.S. Department of the Interior

Gettysburg National Military Park  
Pennsylvania



# Final Disposition of the Gettysburg Cyclorama Building

## *Environmental Assessment*

GETT179110  
August 2012





**U.S. Department of the Interior  
National Park Service  
Gettysburg National Military Park  
Pennsylvania  
Final Disposition of the Gettysburg Cyclorama Building Environmental Assessment  
August 23, 2012**

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This Environmental Assessment (EA) evaluates three alternatives for the Final Disposition of the Gettysburg Cyclorama Building. The EA describes the environment and resources that would be affected by the alternatives and the environmental consequences of implementing these alternatives.

The mission of Gettysburg National Historical Park (the park) is to preserve and protect the resources associated with the Battle of Gettysburg and the Soldiers' National Cemetery, and to provide understanding of the events that occurred here, within the context of American history. The Cyclorama building is located on some of the Battle of Gettysburg's most historically significant land along North Cemetery Ridge. In 1998, the Advisory Council on Historic Preservation (ACHP) determined that the Cyclorama building was eligible for listing on the National Register of Historic Places (National Register). As part of the National Park Service's (NPS) long-term plan to rehabilitate North Cemetery Ridge to its historic 1863 and commemorative-era appearance, the NPS is proposing to demolish the Cyclorama building. The decision to demolish the Cyclorama building was addressed in the *Gettysburg National Military Park General Management Plan/Environmental Impact Statement* (GMP) and approved in a 1999 Record of Decision (ROD). Demolition of the Cyclorama building was also considered and approved in the 1999 Memorandum of Agreement (MOA) between the NPS, the Pennsylvania State Historic Preservation Officer (SHPO), and the ACHP. In 2006, the NPS was sued by the Recent Past Preservation Network and two individuals challenging the government's compliance with both the National Environmental Policy Act of 1969 (NEPA) and the National Historic Preservation Act (NHPA) concerning its decision to demolish the Cyclorama building. While the NPS was found to have complied with the NHPA, in March 2010, the United States District Court for the District of Columbia directed the NPS to undertake a "site-specific environmental analysis on the demolition of the Cyclorama Center" and to consider "non-demolition alternatives" to its demolition before "any implementing action is taken on the Center." Accordingly, the NPS initiated the present EA.

The EA evaluates the no-action alternative (alternative A) and two action alternatives. The NPS identified Alternative B: Demolition of the Cyclorama Building as the NPS preferred alternative because it best meets the project's purpose and need to continue to rehabilitate the landscape of the North Cemetery Ridge to its 1863 and commemorative-era appearance in accordance with the decision in the 1999 approved GMP by removing the Gettysburg Cyclorama building, which is a modern intrusion on the North Cemetery Ridge landscape. Action is needed at this time to improve visitor understanding of the major battle action and the commemoration that took place on the ridge by rehabilitating the landscape in accordance with the decisions made in the GMP and approved ROD and the treatment recommendations in the 2004 CLR. Implementation of the NPS preferred alternative would result in impacts to historic structures, cultural landscapes, archeological resources, scenic resources, local roads and park access, gateway communities, visitor use and experience, and park operations and park facilities.

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**Note to Reviewers and Respondents:**

If you wish to comment on this EA, you may post your comments electronically at <http://parkplanning.nps.gov/cycloramaea> or you may mail comments within 30 days to the address below. Whether you comment on the website or through the mail, if you include your address, phone number, e-mail address, or other personal identifying information, you should be aware that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold personal identifying information from public review, we cannot guarantee that we will be able to do so.

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# ACRONYMS AND ABBREVIATIONS

**ACHP** – Advisory Council on Historic Preservation  
**CEQ** – Council on Environmental Quality  
**CFR** – Code of Federal Regulations  
**CLR** – Cultural Landscape Report  
**CWA** – Clean Water Act  
**DO-12** – Director’s Order #12: *Conservation Planning, Environmental Impact Analysis, and Decision-making* (NPS 2001)  
**Director’s Order 28** – Director’s Order 28: *Cultural Resource Management* (NPS 2002)  
**EA** – environmental assessment  
**EIS** – environmental impact statement  
**EPA** – U.S. Environmental Protection Agency  
**FONSI** – Finding of No Significant Impact  
**FTE** - Full Time Equivalents  
**GMP** – General Management Plan/Environmental Impact Statement as approved in a 1999 Record of Decision  
**HABS** - Historic American Buildings Survey  
**IPCC** – Intergovernmental Panel on Climate Change  
**LhA/LhB** – Lehigh channery silt loam  
**MOA** – Memorandum of Agreement  
**NaB/NaC** – Neshaminy channery silt loam  
**National Register** – National Register of Historic Places  
**NEPA** – National Environmental Policy Act  
**NHPA** – National Historic Preservation Act  
**NPOMA** – National Parks Omnibus Management Act  
**NPS** – National Park Service  
**NRCS** – Natural Resources Conservation Service  
**the park** - Gettysburg National Military Park  
**PEPC** – Planning, Environment and Public Comment  
**PNDI** – Pennsylvania Natural Diversity Inventory  
**ppv** – people-per-vehicle  
**ROD** – Record of Decision  
**SHPO** – State Historic Preservation Officer  
**SOF** – Statement of Findings  
**Uc** – Urban land  
**USC** – United States Code  
**USDA** – U.S. Department of Agriculture  
**USFWS** – U.S. Fish and Wildlife Service  
**VHB** – Vanasse Hangen Brustlin, Inc.



# 1

## PURPOSE AND NEED

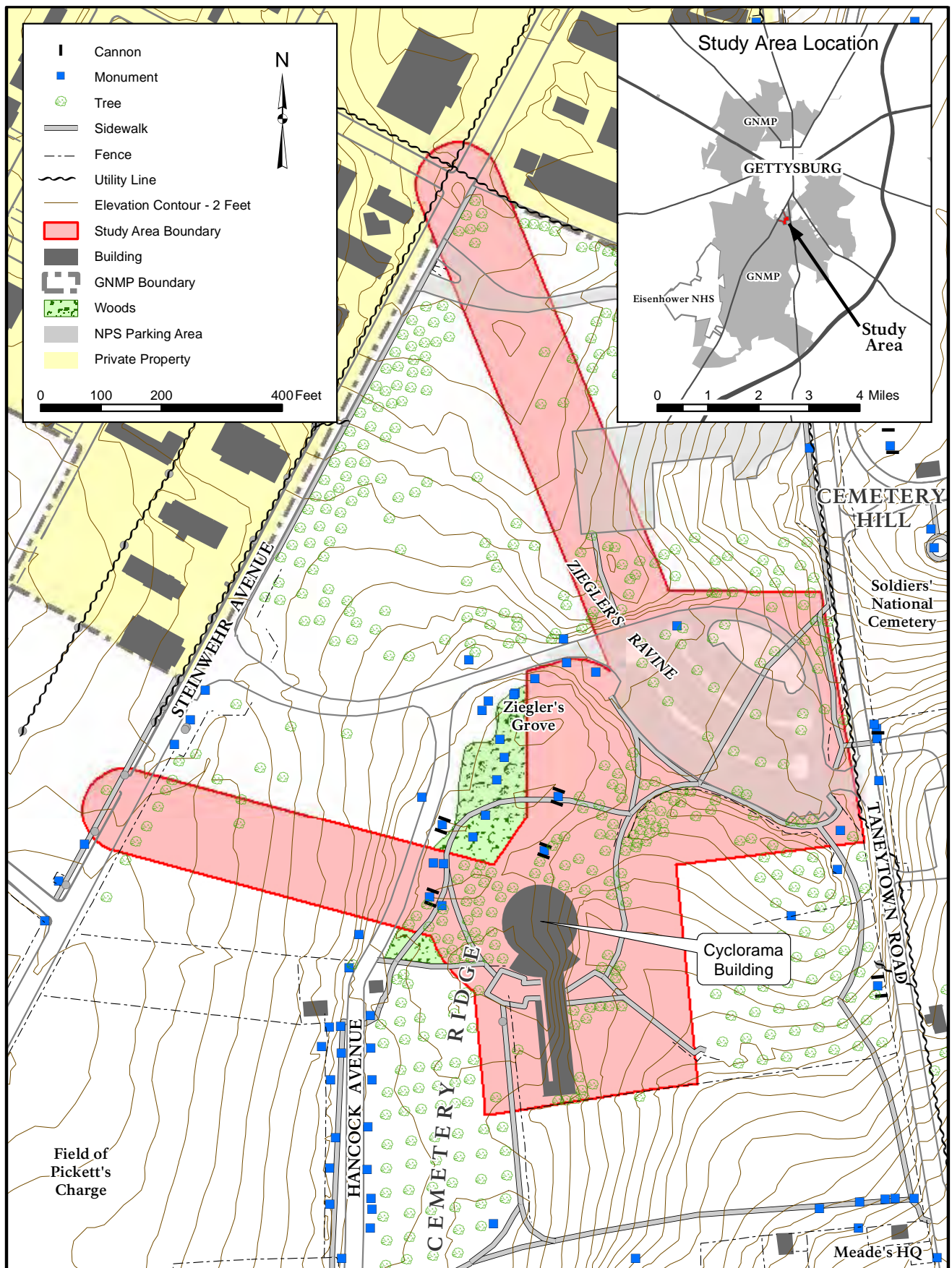
### INTRODUCTION

As part of its long-term plan to rehabilitate the North Cemetery Ridge to its historic 1863 and commemorative-era appearance, the National Park Service (NPS) is proposing to demolish the Gettysburg Cyclorama building in Gettysburg National Military Park (the park). The NPS' decision to demolish the Cyclorama building was addressed in the *Gettysburg National Military Park General Management Plan/Environmental Impact Statement* (GMP) and approved in a 1999 Record of Decision (ROD). Demolition of the Cyclorama building was also considered and approved in the 1999 Memorandum of Agreement (MOA) between the NPS, the Pennsylvania State Historic Preservation Officer (SHPO), and the Advisory Council on Historic Preservation (ACHP). In 2006, the NPS was sued by the Recent Past Preservation Network and two individuals challenging the government's compliance with both the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA) over the decision to demolish the Cyclorama building. While the NPS was found to have complied with the NHPA, in March 2010, the United States District Court directed the NPS to undertake a "site-specific environmental analysis on the demolition of the Cyclorama Center" and to consider "non-demolition alternatives" to its demolition before "any implementing action is taken on the Center." Accordingly, the NPS initiated the present environmental assessment (EA).

This EA describes three alternatives, including two action alternatives and the no-action alternative, and analyzes the environmental consequences of implementing the alternatives. This EA has been prepared in accordance with NEPA, as amended [42 United States Code (USC) 4332(2) (C)], the implementing regulations of the Council on Environmental Quality (CEQ) [40 Code of Federal Regulations (CFR) 1500-1508.9], the Department of the Interior NEPA regulations (43 CFR Part 46), and NPS Director's Order #12: *Conservation Planning, Environmental Impact Analysis and Decision-Making* (DO-12) and the accompanying DO-12 Handbook (NPS 2001).

### PURPOSE OF AND NEED FOR ACTION

The purpose of the NPS action is to continue to rehabilitate the landscape of the North Cemetery Ridge to its 1863 and commemorative-era appearance in accordance with the decision in the 1999 approved GMP by removing the Gettysburg Cyclorama building (figure 1), which is a modern intrusion on the North Cemetery Ridge landscape. Once this intrusion is removed, the NPS will rehabilitate important historic landscape features according to the treatment recommendations contained in the 2004 cultural landscape report (CLR) for the North Cemetery Ridge Area (NPS 2004a).



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Figure 1  
Project Location and Study Area

The mission of the Gettysburg National Military Park is to preserve and protect the resources associated with the Battle of Gettysburg and the Soldier's National Cemetery, and to provide understanding of the events that occurred here, within the context of American history. The Cyclorama building is located on some of the Battle of Gettysburg's most historically significant land along North Cemetery Ridge. Action is needed at this time to improve visitor understanding of the major battle action and the commemoration that took place on the ridge by rehabilitating the landscape in accordance with the decisions made in the GMP and approved ROD and the treatment recommendations in the 2004 CLR.

## **STUDY AREA**

Gettysburg National Military Park is located in south-central Pennsylvania, just 75 miles from Washington, D.C., 55 miles from Baltimore, Maryland, and 37 miles from Harrisburg, Pennsylvania. The 1962 Cyclorama building is located within the park boundaries, near the intersection of Steinwehr Avenue and Taneytown Road. Several businesses line Steinwehr Avenue, located across from the Cyclorama building. The Cyclorama building sits on the northern end of Cemetery Ridge, adjacent to Ziegler's Ravine, both of which are at the base of Cemetery Hill. The area of North Cemetery Ridge also includes historic buildings; a variety of fences, walls, and orchards which represent the 1863-era historic condition of the site; and monuments and associated site development related to the commemoration of the battle for North Cemetery Ridge. The Soldiers' National Cemetery is also located adjacent to the grounds of the Cyclorama building. In total, the study area for this project includes 12.4 acres of park land.

## **HISTORY AND SIGNIFICANCE OF GETTYSBURG NATIONAL MILITARY PARK**

Gettysburg National Military Park is the site of the American Civil War Battle of Gettysburg, the Soldiers' National Cemetery, and the commemoration of the great battle by Civil War veterans. Important sites on the battlefield were preserved immediately after the 1863 battle, and Congress established the park in 1895. Administered by the NPS since 1933, the park now comprises 5,989 acres of land, across which the battle, its aftermath, and commemoration occurred.

More than 1,700 monuments and cannons were placed in the park by battle survivors to commemorate their comrades who served or fell in battle. The park also owns collections of more than one million artifacts, printed texts, historic photographs, and other archival documents. These collections are notable because the great majority of them are directly related to the Battle of Gettysburg and its commemoration. The largest object in the collection and one of the most well known is the Cyclorama painting entitled the "Battle of Gettysburg." The panoramic painting by Paul Philippoteaux depicts "Pickett's Charge," a pivotal attack during the three-day battle. Measuring 377 feet at its widest points and 42 feet high, the painting is a National Historic Object, as designated under the Historic Sites Act of 1935. Together, this painting, the land, monuments, and collections represent a remarkable resource that portrays the compelling story of this important time in America's history.

The legislative purpose, significance, and mission help shape a national park and guide management practices for each individual park. The legislative purpose outlines the reasons for which a park was set aside as part of the national park system and provides fundamental criteria against which the appropriateness of all plan recommendations, operational decisions, and actions are tested. A park's National Register documentation explains why the park is nationally significant and describes those

resources that contribute to its significance. Lastly, the park mission statement summarizes the NPS' understanding of why a park was created and why it matters to Americans.

## **LEGISLATIVE PURPOSE OF GETTYSBURG NATIONAL MILITARY PARK**

The legislative purpose of the park is:

- to preserve the topographical, natural, and cultural features that were significant to the outcome of the Battle of Gettysburg
- to mark the lines of battle and to preserve the monuments and markers that commemorate the struggle
- to provide opportunities for people to learn about the Battle of Gettysburg in the full social, political, and cultural context of the Civil War and American History
- to preserve the objects, artifacts, and archives that document the battle, its aftermath, and commemoration

## **STATEMENT OF SIGNIFICANCE**

Gettysburg National Military Park is nationally significant as the site of the Battle of Gettysburg, the Soldiers' National Cemetery, and the commemoration and preservation of the battleground. The battle was the largest and most costly in human terms to occur on the North American continent. It lessened the Confederacy's ability to successfully wage war and contributed to the ultimate preservation of the United States. The creation of the Soldiers' National Cemetery and Abraham Lincoln's Gettysburg Address heightened America's sense of the meaning and importance of the war. The national park, inspired by those who experienced the Civil War, preserved major features of the 1863 battlefield and commemorated the valor and sacrifice of participants. These elements make Gettysburg a place where Americans continue to remember and honor those whose struggle led to a united nation.

## **MISSION**

The mission of Gettysburg National Military Park is to preserve and protect the resources associated with the Battle of Gettysburg and the Soldiers' National Cemetery, and to provide understanding of the events that occurred here, within the context of American history.

## **HISTORY AND SIGNIFICANCE OF THE GETTYSBURG LANDSCAPE AND CYCLORAMA BUILDING**

Gettysburg National Military Park was established by Congress in 1895 to preserve the topographical, natural, and cultural features that were significant to the outcome of the Battle of Gettysburg and to mark lines of battle and provide access thereto. One of the most significant of the battle actions was the battle for defense of North Cemetery Ridge, which began in the late afternoon of July 1, 1863, and ended with Pickett's Charge on the afternoon of July 3. After pummeling Cemetery Hill and Cemetery Ridge with a grand cannonade, Confederate General Robert E. Lee sent 12,000 to 13,000 men across the exposed fields toward the Union position on North Cemetery Ridge, only to be decisively repulsed by the forces of Union General George Meade. With the collapse of Pickett's assault, the Battle of Gettysburg was essentially over.



A view capturing the landscape of the Battle of Gettysburg and some of the monuments installed to commemorate the event.

Ever since the immediate post-Civil War years, private and government organizations struggled to simultaneously preserve and provide access to the important battlefield and commemorative landscape at Gettysburg. The Gettysburg Battlefield Memorial Association, a state-chartered corporation, presided over the preservation of Gettysburg battlefield from 1863 to 1895, at which point the War Department took over management responsibilities. Management of the park, including the preserved sections of the battlefield and National Cemetery where President Abraham Lincoln gave the Gettysburg Address, was transferred from the War Department to the NPS in 1933.

As a result of the various initiatives to identify and understand historic properties, the NPS identified three landscapes and their associated resources in the 1999 GMP as nationally significant. These landscapes were recognized in the 2004 National Register documentation (NPS 2004b). The landscapes and their dates of significance are: the historic field of the Battle of Gettysburg (1863), the Soldiers' National Cemetery (1863-1927), and the commemoration of the battle by its veterans (1864-1938). The care taken by veterans during the development of the narrow commemorative corridors helped to ensure that the features that were significant to the outcome of the battle were preserved across the field of battle. At the end of the period of veteran management of the battlefield and commemorative park, the field of battle retained most of its significant natural and cultural features.

In the early 1960s, the Cyclorama building was built on North Cemetery Ridge, the grounds on which the Union army fought during Pickett's Charge as part of the Battle of Gettysburg. The Cyclorama building sits on the northern end of Cemetery Ridge, adjacent to Ziegler's Ravine, both of which are at the base of Cemetery Hill.



## **THE NORTH CEMETERY RIDGE AREA**

The rural landscape of Adams County that cradled the small town of Gettysburg became the site of the Battle of Gettysburg between July 1 and 3, 1863. The rolling terrain surrounding the town, with its distinct rock outcroppings, influenced the circulation, settlement, and agricultural patterns, which in turn affected the tactics used by the armies engaged at Gettysburg in 1863. Cemetery Ridge, Seminary Ridge, Culp's Hill, Little Round Top, Peach Orchard, Wheatfield, the field of Pickett's Charge, and many other places were transformed into the landmarks of the three-day battle.

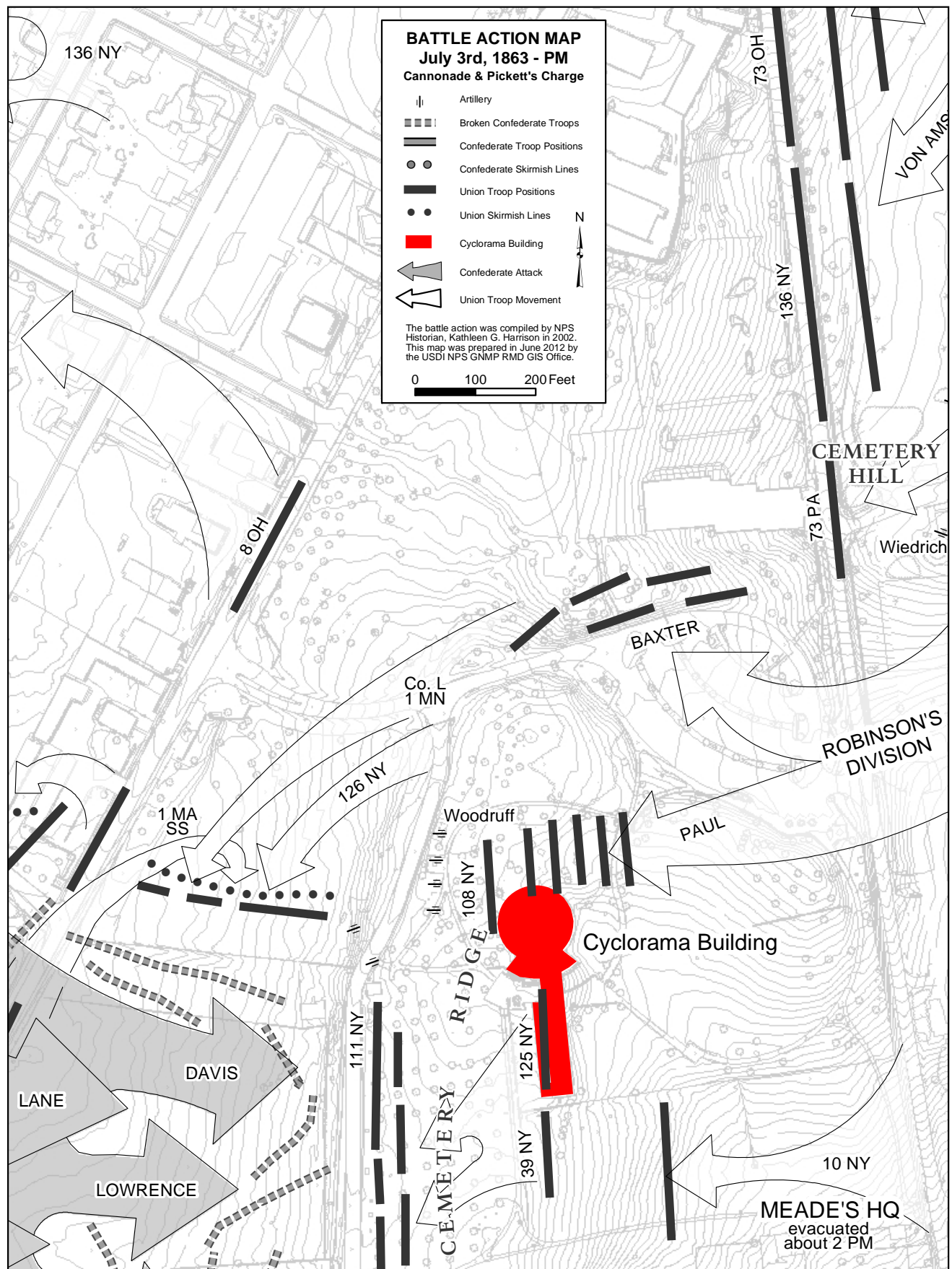
Pickett's Charge was held back all along the Union battle line on Cemetery Ridge, but was most sound in front of the northern extremity of North Cemetery Ridge. The infantry and artillery defense of this part of the ridge and Cemetery Hill prevented any possibility of the enemy penetrating the gap in the military terrain. The inability of the Confederate army to secure the key terrain of Cemetery Hill after three days of battle curtailed the invasion of the North and led to the final retreat of the Confederate army into Virginia. The southern forces spent the remainder of the war defending the Confederate capital from capture.

## **THE GETTYSBURG CYCLORAMA BUILDING**

The Cyclorama building was built between 1959 and 1962 on the ground that was held by the Union army and the site of extensive fighting during the defense of North Cemetery Ridge (figure 2). The Cyclorama building, sited adjacent to Ziegler's Grove to take advantage of the panoramic view, was commissioned by the NPS and designed by architect Richard Neutra to serve as a visitor center and to display the then 356-foot-long famous cylindrical painting created in 1884 by French artist Paul Philippoteaux depicting Pickett's Charge. This painting allowed spectators to stand in the center of a circle and surround themselves within the landscape and moment of Pickett's Charge, a pivotal event in the Battle of Gettysburg. Before installation in Neutra's Cyclorama building, the painting was conserved and somewhat altered to fit into the designed space. The canvas was cut into 25 sections and four feet of painted sky was removed to compensate for loss of convexity and to repair damage (Allaback 2000).

The Cyclorama building was the first "combined" visitor center and administration building at the park. This structure also represents a key example in the development of the visitor center as a building type. Modernist architect Richard Neutra, along with business partner Robert Alexander, designed a dramatic mid-century modern structure of reinforced concrete, glass, and aluminum accented with native fieldstone. The Gettysburg Cyclorama building opened to the public in 1962. The Cyclorama building was one of a handful of high profile new visitor centers designed as part of the larger Mission 66 initiative. Mission 66 was an NPS-wide effort to upgrade park visitor facilities. The program lasted from roughly 1956 to 1966, culminating at the 50th anniversary of the NPS.

In 1971, the park acquired the nearby Rosensteel's National Museum of the Civil War, as well as its extensive artifact collection. Shortly thereafter, the NPS started using this second building as the visitor center, museum, and administrative offices, because the second building was a better fit for these purposes. Therefore, commencing in 1971, the Cyclorama building no longer served as the main visitor center, but did house the famed Cyclorama painting.



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Figure 2  
 Cyclorama Building's Relationship to  
 Pickett's Charge



However, in 2008, the Cyclorama painting was moved into the current park museum and visitor center because environmental conditions in the Cyclorama building could not be adequately controlled to preserve the historic painting. The Cyclorama building gallery was not designed to allow for hanging or display of the painting in its original form and therefore, the painting was stretched at both the top and the bottom of its original parabolic shape. The Cyclorama Building gallery also did not adequately allow for the diorama display with three dimensional items in the foreground of the painting.



A view of the North Cemetery Ridge area, with the Gettysburg Cyclorama building shown on the left.

## **PROJECT BACKGROUND**

In 1997, the NPS began formulating a new GMP for Gettysburg National Military Park. Among other actions, the 1999 GMP recommended the rehabilitation of the North Cemetery Ridge to its historic 1863 and commemorative-era appearance, including the removal of the visitor center (the Rosensteel building) and the Gettysburg Cyclorama building, as part of the NPS preferred alternative. Compliance with Section 106 of the NHPA regarding the demolition of the Gettysburg Cyclorama building, as part of the 1999 GMP, was conducted. This compliance included an MOA with the SHPO and the ACHP (appendix B). That MOA approved the demolition of the Cyclorama building, subject to requirements for its documentation prior to demolition. On November 23, 1999, the NPS issued a ROD selecting alternative C, which included rehabilitation of the landscape to the 1863 and commemorative-era appearance and the demolition and removal of the visitor center and Cyclorama building.

Upon approval of the 1999 GMP, planning for a new park museum and visitor center began, and the NPS began restoration of the Cyclorama painting to its original size and configuration. In addition, in 2004 the NPS completed a CLR, which included treatment recommendations for the major battle areas involved in the Defense of Cemetery Hill. Documentation was completed in 2005 (HABS-PA-6709). In April of 2008, the NPS completed the new park museum and visitor center and installed the restored Cyclorama

painting in the new facility which was specifically designed to house the restored painting. Park staff also moved the offices and library into the new park museum and visitor center, leaving the Cyclorama building vacant. In 2009, the NPS demolished the former visitor center as part of the implementation of the GMP and rehabilitation of the North Cemetery Ridge to its historic 1863 and commemorative-era appearance.

In 2006, the NPS was sued by the Recent Past Preservation Network and two individuals challenging the government's compliance with both NEPA and the NHPA over the decision to demolish the Cyclorama building. While the NPS was found to have complied with the NHPA, in March 2010, the United States District Court for the District of Columbia directed the NPS to comply with NEPA prior to demolishing the Cyclorama building.



The new Gettysburg National Military Park Museum and Visitor Center.

## **PREVIOUS AND RELATED PLANNING STUDIES**

Several plans and studies have informed and contributed to the development of alternatives for the final disposition of the Cyclorama building. These include the *Gettysburg National Military Park General Management Plan/Environmental Impact Statement* (NPS 1999), ACHP consultation and MOA (appendix B), *Cultural Landscape Report: Defense of Cemetery Hill* (NPS 2004a), and the 2004 National Register documentation for the park (NPS 2004b).

### **Gettysburg National Military Park General Management Plan/Environmental Impact Statement and Record of Decision, 1999**

The final *Gettysburg National Military Park General Management Plan/Environmental Impact Statement* described four alternatives for the management of the park, the environment that would be affected by the alternatives, and the environmental consequences of those alternatives. Of the four alternatives evaluated,

alternative C, which included the rehabilitation of the North Cemetery Ridge to its historic 1863 and commemorative-era appearance, including the removal of the visitor center and the Cyclorama building, was identified as the NPS preferred alternative. In a ROD, signed by the Northeast Regional Director on November 23, 1999, the NPS selected alternative C for implementation as the approved GMP for the park. The Cyclorama building currently is located on some of the Battle of Gettysburg's most historically significant land along North Cemetery Ridge. The NPS's decision to relocate visitor facilities to a new site near their existing location, but on land that was not significant to the outcome of the battle, allows for rehabilitation of North Cemetery Ridge, the area that was the center of the Union Line during the second and third days of the Battle of Gettysburg.

### **ACHP Consultation and MOA**

The rehabilitation of North Cemetery Ridge involves the removal of the Cyclorama building, which is eligible for listing on the National Register. The determination of eligibility was made by the ACHP on September 24, 1998, under criterion A (representing a contribution to the broad pattern of history) and criterion C (representing a work of a master or embodying the distinctive characteristics of a type or period of construction/architecture). The NPS began consultations in December 1998 with the ACHP, the SHPO, and interested parties and individuals regarding the removal of the structure. On May 14, 1999, the ACHP concurred with the findings of the draft GMP, including the proposed rehabilitation of the park's historic landscapes, the Cyclorama painting, and the removal of the Cyclorama building, finding that, "The restoration of this key battlefield site so that the battlefield can properly be interpreted must be regarded as a historic mission of the highest order." Subsequently, pursuant to the MOA dated July 29, 1999, the NPS consulted with the ACHP, the SHPO, and interested parties to develop appropriate mitigation measures to address the removal of the Cyclorama building (appendix B). Mitigation included documentation of the structure, which was completed in 2005 (HABS-PA-6709), and inclusion of a Mission 66/Cyclorama building exhibit, which has been built and is included in the new park museum and visitor center. All stipulations in the MOA were completed, thus satisfying the NPS' Section 106 responsibilities for removal of the Cyclorama building.

### **Cultural Landscape Report: Defense of Cemetery Hill**

In June of 2004, the NPS completed a CLR for the North Cemetery Ridge Area. The CLR focuses on providing appropriate levels of documentation for the historic conditions in the study area and the evolution of the landscape from 1863 to the present. The intent of the research was to establish the recommendations for rehabilitation of the landscape of the battle and the battle commemoration. Additionally, the document included solutions for parking and traffic issues to satisfy contemporary requirements within the study areas. The report also included plans for repairs to landscape features that have changed and designs for missing landscape features. Treatment recommendations included removal of the visitor center and the Cyclorama building, as well as rehabilitation of important historic landscape features. This document was developed in consultation with the SHPO as part of NHPA requirements. The treatment plan can be found in appendix C of this document.

## **2004 National Register Documentation for Gettysburg National Military Park**

The revised National Register form for the park documents the significant events and associations in the battlefield and evaluates the relative contributions of the existing historic resources to the overall context of the park (NPS 2004b). The National Register form delineates the Cyclorama building as a non-contributing resource. The Cyclorama building has been individually assessed and determined to be eligible for listing on the National Register for its architecture and association with Richard Neutra. However, it does not meet the themes for which the Gettysburg National Military Park/Soldiers' National Cemetery nomination was prepared. See also the ACHP MOA dated July 29, 1999 for the finding on the removal of the Cyclorama building (appendix B).

## **SCOPING**

Scoping is an early and open process to determine the breadth of environmental issues and alternatives to be addressed in a NEPA document. Scoping is used to identify which issues need to be analyzed in detail and which can be eliminated from in-depth analysis. It also allocates assignments among the NPS' interdisciplinary team members and/or other participating agencies; identifies related projects and associated documents; identifies permits, surveys, consultation, and other requirements; and creates a schedule that allows adequate time to prepare and distribute the EA for public review and comment before a final decision is made. Typically, both internal and public scoping is held to address these elements. Public scoping includes any stakeholder or agency with jurisdiction by law or expertise to obtain early input. The scoping process is summarized below and detailed in chapter 5.

Agency scoping for this project began in July 2010. Scoping letters were sent out to various agencies for feedback on the proposed project and alternatives. Copies of these letters and responses from the agencies, if applicable, can be found in appendix A. These agencies included the Pennsylvania Department of Conservation and Natural Resources, United States Fish and Wildlife Service (USFWS), the ACHP, and the SHPO. The Pennsylvania Department of Conservation and Natural Resources replied that according to the information provided, the proposed action is not anticipated to impact species or resources of concern located in the vicinity of the project. The USFWS replied that no federally listed species under its jurisdiction are known or are likely to occur in the study area. The SHPO replied that although proposed demolition is determined to be an adverse effect, the SHPO believes that demolition in order to return the area to its appearance at the time of the battle is the best alternative. The ACHP and the SHPO executed an MOA in July of 2009 for demolition of the Cyclorama building, and all required mitigation was carried out. The MOA can be found in appendix B of this document. The park also initiated coordination with the Delaware Tribe of Indians and the Delaware Nation. No responses have been received from the tribes.

The public scoping process for this EA included distribution of a press release in July 2010, which was sent out to news organizations, community partners, historic preservation and Civil War organizations, and other potentially interested parties, stating the park's intentions to begin the EA process for the Cyclorama building. The official public scoping period began on August 24, 2010 and concluded on October 1, 2010. During the scoping period, the NPS encouraged the public to submit comments either through the NPS Planning, Environment and Public Comment (PEPC) website or by mail. In late August, an article about the EA was published in the park newsletter, and a second press release was published, which included an invitation to the public to attend two public scoping meetings. Paid advertisements and



a radio interview also were used to inform the public about the upcoming meetings. Public scoping meetings were conducted by park staff on September 16 and 17, 2010. The meetings presented information about the planning process and the range of alternatives proposed, and solicited input from the public about the purpose, need, objectives, and any other topics of concern.

In addition to the agency and public scoping efforts outlined above, the park conducted a survey in February 2008 to determine the most important character-defining elements of the Cyclorama building. The NPS Historical Architecture program provided the park with a list of architectural elements that should have representative samples retained for future research. The park determined in August of 2008 that none of these items met the park's Scope of Collection Statement (NPS 2006b, updated in 2011) and would therefore not be retained by the park in their museum collection. The University of California, Los Angeles currently has the personal papers of Richard Neutra in their collections. The NPS contacted them via telephone to inquire if any of the architectural elements could be included in their Neutra collection. The university replied that they only collect archival material. The Museum of Modern Art was contacted in September of 2008, and due to the size and number of items being retained, the museum was unable to accept this collection. The NPS also sent a letter to the National Building Museum in February of 2009 requesting consideration of these materials, and the NPS received no response to this letter.

## **ISSUES AND IMPACT TOPICS**

### **PLANNING ISSUES AND CONCERNS**

During the scoping process, specific considerations and concerns were identified as critical to implementation of the proposed action. The following were identified as most important to the planning and design process: protection and enhancement of cultural resources and park operations. Along with the purpose and need for the proposed action, these topics guided the development of alternatives and contributed to the selection of impact topics, as identified in the "Impact Topics Retained for Analysis" section below.

#### **Protection and Enhancement of Cultural Resources**

The North Cemetery Ridge area contains overlapping resources, which include the landscape of the 1863 battle, the commemoration of the battle by its veterans, and the Cyclorama building. In some cases, these resources are conflicting, and difficult decisions about the most appropriate treatment are investigated in this EA. The 1999 GMP directs the park to manage the landscape to reflect the historic 1863 and commemorative-era appearance, which includes the North Cemetery Ridge area. However, the Cyclorama building is a National Register-eligible building that is located on North Cemetery Ridge, unassociated with either of the nationally significant 1863 battle or historic commemorative landscapes.

#### **Park Operations**

Any decisions concerning future management of the area and its resources must consider the ability of the NPS to maintain buildings, landscapes, or structures and the fiscal implications of such management.

## **REGULATORY ISSUES AND MANAGEMENT CONCERNS**

The NPS is governed by laws, regulations, and management plans before, during, and following any management action. The following are those that are applicable to the proposed action:

### **National Environmental Policy Act of 1969 as Amended**

NEPA was passed by Congress in 1969 and took effect on January 1, 1970. This legislation established the country's environmental policies, including the goal of achieving productive harmony between human beings and the physical environment for present and future generations. It provided the tools to implement these goals by requiring that every federal agency prepare an in-depth study of the impacts of "major federal actions having a significant effect on the environment" and alternatives to those actions. It also required that each agency make that information an integral part of its decision-making process. NEPA also requires that agencies make a diligent effort to involve interested members of the public before agencies make decisions affecting the environment. NEPA is implemented through regulations of the CEQ (40 CFR 20 1500-1508). The NPS has in turn adopted procedures to comply with the act and the CEQ regulations, as found in Director's Order 12 (NPS 2001) and its accompanying handbook.

### **National Historic Preservation Act of 1966 as Amended**

The NHPA, as amended, protects buildings, sites, districts, structures, and objects that have significant scientific, historic, or cultural value. The act established affirmative responsibilities of federal agencies to preserve historic and prehistoric resources. Effects on properties that are listed on or which are eligible for listing on the National Register must be taken into account in planning and operations. Any property that may qualify for listing on the National Register must not be inadvertently transferred, sold, demolished, substantially altered, or allowed to deteriorate.

### **Section 106 of the National Historic Preservation Act**

Section 106 requires federal agencies to take into account the effects of their undertakings on historic properties. The ACHP is then afforded a reasonable opportunity to comment. The historic preservation review process mandated by Section 106 is outlined in regulations issued by the ACHP. Revised regulations, known as "Protection of Historic Properties" (36 CFR Part 800), were updated on August 5, 2004.

### **NPS Organic Act of 1916**

By enacting the NPS Organic Act of 1916, Congress directed the U.S. Department of Interior and the NPS to manage units "to conserve the scenery and the natural and historic objects and wildlife therein and to provide for the enjoyment of the same in such a manner and by such a means as will leave them unimpaired for the enjoyment of future generations" (16 USC section 1). Congress reiterated this mandate in the Redwood National Park Expansion Act of 1978 by stating that the NPS must conduct its actions in a manner that will ensure no "derogation of the values and purposes for which these various areas have been established, except as may have been or shall be directly and specifically provided by Congress" (16 USC section 1a-1). Despite these mandates, the Organic Act and its amendments afford the NPS latitude when making resource decisions that balance resource preservation and visitor recreation.

## **Historic Sites Act of 1935**

The Historic Sites Act of 1935 declares the preservation for public use of historic sites, buildings, objects, and properties of national significance as a national policy. It authorizes the Secretary of the Interior and the Director of the NPS to restore, reconstruct, rehabilitate, preserve, and maintain historic or prehistoric sites, buildings, objects, and properties of national historical or archeological significance.

## **Redwood National Park Act of 1978 as Amended**

The Redwood National Park Act of 1978, as amended, states that the NPS must conduct its actions in a manner that will ensure no “derogation of the values and purposes for which these various areas have been established, except as may have been or shall be directly and specifically provided by Congress.” This management is to be uniform across the national park system without regard to whether the unit of the system was established as a recreation area, historic site, or other designation.

## **National Parks Omnibus Management Act of 1998**

The National Parks Omnibus Management Act (NPOMA) [16 USC 5901 et seq.] underscores NEPA and is fundamental to NPS park management decisions. Both NPOMA and NEPA act to provide direction for articulating and connecting resource management decisions to the analysis of impacts, using appropriate technical and scientific information. Both also provide options for resource impact analysis, should such data not be readily available. NPOMA directs the NPS to obtain scientific and technical information for analysis. The NPS handbook for Director’s Order 12 states that if “such information cannot be obtained due to excessive cost or technical impossibility, the proposed alternative for decision will be modified to eliminate the action causing the unknown or uncertain impact, or other alternatives will be selected” (NPS 2001).

## **NPS Management Policies**

The NPS *Management Policies 2006* (NPS 2006a) is the basic NPS-wide policy document, adherence to which is mandatory unless specifically waived or modified by the Director of the NPS or certain departmental officials, including the U.S. Secretary of the Interior. Actions under this EA are in part guided by these management policies. Sections which are particularly relevant to this project are as follows:

**Section 5.3.1 - Protection and Preservation of Cultural Resources.** The NPS will endeavor to protect cultural resources against overuse, deterioration, environmental impacts, and other threats without compromising the integrity of cultural resources.

**Section 9.1.1.3 - Protection of Cultural Values.** The NPS will make every effort to use existing contributing structures when important cultural resources are present.

**Section 9.6 – Commemorative Works and Plaques.** The NPS will discourage and curtail the use and proliferation of commemorative works except when specifically authorized by Congress or, when there is compelling justification for the commemoration, the subject is of exceptional importance, and the Director of the NPS has approved the commemoration.



**Section 1.4: The Prohibition on Impairment of Park Resources and Values.** By enacting the NPS Organic Act of 1916, Congress directed the U.S. Department of the Interior and the NPS to manage units “to conserve the scenery and the natural and historic objects and wildlife therein and to provide for the enjoyment of the same in such a manner and by such a means as will leave them unimpaired for the enjoyment of future generations” (16 USC section 1). Congress reiterated this mandate in the Redwood National Park Expansion Act of 1978 by stating that the NPS must conduct its actions in a manner that will ensure no “derogation of the values and purposes for which these various areas have been established, except as may have been or shall be directly and specifically provided by Congress” (16 USC section 1a-1).

Section 1.4.4, explains the prohibition on impairment of park resources and values:

While Congress has given the Service the management discretion to allow impacts within parks, that discretion is limited by the statutory requirement (generally enforceable by the federal courts) that the Park Service must leave park resources and values unimpaired unless a particular law directly and specifically provides otherwise. This, the cornerstone of the Organic Act, establishes the primary responsibility of the National Park Service. It ensures that park resources and values will continue to exist in a condition that will allow the American people to have present and future opportunities for enjoyment of them.

The NPS has discretion to allow impacts on park resources and values when necessary and appropriate to fulfill the purposes of a park (NPS 2006a). However, the NPS cannot allow for an adverse impact that would constitute impairment of the affected resources and values (NPS 2006a). An action constitutes an impairment when its impacts “harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values” (NPS 2006a). To determine impairment, the NPS must evaluate “the particular resources and values that would be affected; the severity, duration, and timing of the impact; the direct and indirect effects of the impact; and the cumulative effects of the impact in question and other impacts” (NPS 2006a). At the time when an alternative is selected for implementation, a written impairment determination for the selected alternative will be prepared and appended to the decision document.

## **IMPACT TOPICS RETAINED FOR FURTHER ANALYSIS**

Impact topics are resources within the study area that could be affected, either beneficially or adversely, by the range of alternatives presented in this EA. Impact topics considered in this document were identified based on the issues raised during scoping, site conditions, federal laws, regulations, Executive Orders, NPS *Management Policies 2006*, Director’s Orders, and staff knowledge of the park’s resources.

Impact topics identified and analyzed in this EA are listed below along with reasons for the selection of each impact topic. Each impact topic is further discussed in detail in “Chapter 3: Affected Environment” of this document. Potential impacts to resources from the proposed alternatives are discussed in “Chapter 4: Environmental Consequences.”

## Historic Structures

The park contains a number of historic buildings, monuments, and structures within its boundaries. A historic structure is defined by the NPS as “a constructed work, usually immovable by nature or design, consciously created to serve some human act” (NPS 2002). Cultural resources are evaluated for significance using the National Register Criteria for Evaluation (36 CFR 60.4), and those meeting the criteria are nominated for listing (NPS 2006a). To be listed on or eligible for listing on the National Register, a site, structure, object, or district must have significance to the history of their community, state, or the nation and possess historic integrity of those features necessary to convey its significance, particularly with respect to location, setting, design, feeling, association, workmanship, and materials. The National Register Bulletin 15: *How to Apply the National Register Criteria for Evaluation* (NPS 1990) provides a comprehensive discussion of these characteristics. Criteria for evaluation include whether or not the resource is associated with events that have made a significant contribution to the broad patterns of our history; or is associated with the lives of significant persons in our past; or embodies the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or have yielded or may be likely to yield information important in history or prehistory (NPS 1990).

The Gettysburg Cyclorama building is a National Register-eligible structure; the Section 106 consultation process has been completed for removal of the building; however, coordination with the SHPO, the Keeper of the National Register, and the ACHP would continue throughout the life of the project. The SHPO has commented that although the demolition of the Cyclorama building would represent an adverse effect to the building, the rehabilitation of the battlefield’s defined historic landscapes has a higher priority. Alternatives that retain the building or result in its movement would require additional and supplemental consultation with the SHPO and the ACHP. Because the proposed action could impact historic buildings and monuments that would be moved and returned to their original locations, the impact topic of historic structures is retained for further analysis in this EA.

## Cultural Landscapes

According to the NPS Director’s Order 28: *Cultural Resource Management* (Director’s Order 28) (NPS 2002), a cultural landscape is:

...a reflection of human adaptation and use of natural resources and is often expressed in the way land is organized and divided, patterns of settlement, land use, systems of circulation, and the types of structures that are built. The character of a cultural landscape is defined both by physical materials, such as roads, buildings, walls, and vegetation, and by use reflecting cultural values and traditions.

The implementation of any of the proposed alternatives would result in impacts to the Cyclorama building and the surrounding landscape. Such actions would take place within historic and designed landscapes that are nationally significant and contribute to the story of the battle and its consequences. The 1863 battlefield landscape is the largest significant landscape at Gettysburg. Portions of the North Cemetery Ridge that are currently occupied by the Cyclorama building contained several features that affected the outcome of the battle and defined this portion of that cultural landscape. The designed landscapes of the national cemetery and of the commemorative national military park also are nationally significant because

they define the spaces that were created by the battle veterans to honor the fallen soldiers, to mark the lines of battle, and to perpetuate the national memory of the event and of the Civil War. The proposed disposition of the Cyclorama building could impact the cultural landscapes within the park. Therefore, the impact topic of cultural landscapes is retained for further analysis in this EA. In addition to the human use associated with cultural landscapes, the development of the landscapes is also tied to and includes topographic features and relief, site elevation, slope orientation, rock exposure, and modification of soil types and vegetation. For purposes of analysis in this document these features are included in the evaluation of impacts to cultural landscapes.

### **Archeological Resources**

NPS *Management Policies 2006* state that archeological resources “will be maintained and preserved in a stable condition to prevent degradation and loss” (NPS 2006a). Archeological resources are the material remains of past human activity (NPS 2000). Archeological sites within the study area are representative of the broad patterns of human history associated with the greater Gettysburg area. Identified resources of earliest habitation are few, but some have been found to date to the late archaic period (circa 3000-1800 BC). The proposed development could impact any or all of these resources. Therefore, the impact topic of archeological resources is retained for further analysis in this EA.

### **Scenic Resources**

Under the NPS *Management Policies 2006*, a park’s scenery, scenic features, and natural visibility (in daytime and at night) are considered among the park resources and values that are not to be impaired (NPS 2006a). The historic battlefield setting is a critical resource of the park. Under the management of the Gettysburg Battlefield Memorial Association, the U.S. War Department, and now the NPS, preservation of the visual landscape of the battle has been a key management objective and is described in the 1999 GMP as an important value to be protected. The proposed project could impact the scenic resources of the North Cemetery Ridge vista and other elements within the park. Therefore, the impact topic of scenic resources is retained for further analysis in this EA.

### **Local Roads and Park Access**

According to the NPS *Management Policies 2006*, the “location, type, and design of transportation systems” influence the quality of the visitor experience. In addition, “these systems also affect, to a great degree, how and where park resources will be impacted.” The NPS advises that management decisions regarding transportation facilities require a full, interdisciplinary consideration of alternatives and a full understanding of their consequences. The proposed project could result in temporary traffic-related impacts to local roads and park access during project implementation, including potential road closures. Therefore, the impact topic of local roads and park access is retained for further analysis in this EA.

### **Gateway Communities**

NPS *Management Policies 2006* state that the NPS will “encourage the private sector to meet facility needs in gateway communities and thus contribute to local economic development, encourage competition, increase choices for visitors, and minimize the need for in-park construction.” The Borough of Gettysburg and surrounding townships are considered park gateway communities, and the immediate area associated with the Steinwehr Business Owners is a component of the community. The proposed project could impact this gateway community. Therefore, the impact topic of gateway communities is retained for further analysis in this EA.

## **Visitor Use and Experience**

Enjoyment of park resources and values by the people of the United States is part of the fundamental purpose of all parks (NPS 2006a). The NPS strives to provide opportunities for forms of enjoyment and education that are uniquely suited and appropriate to the natural and cultural resources found in parks. The proposed action is meant to enhance the visitor experience, which encompasses interpretation, understanding, enjoyment, safety, circulation, and accessibility of the park. The proposed action could result in changes to the visitor experience. Therefore, the impact topic of visitor use and experience is retained for further analysis in this EA.

## **Park Operations and Park Facilities**

According to NPS *Management Policies 2006*, the NPS “will provide visitor and administrative facilities that are necessary, appropriate and consistent with the conservation of park resources and values” (NPS 2006a). The proposed action could result in changes to NPS operations and facilities within the study area, including increased building or landscape maintenance and energy consumption. Therefore, the impact topic of park operations and park facilities is retained for further analysis in this EA.

## **IMPACT TOPICS CONSIDERED BUT DISMISSED FROM FURTHER ANALYSIS**

The following presents an overview of impact topics that were considered, but ultimately dismissed from further analysis. An impact topic was initially considered but dismissed from further analysis if it was determined that the resource is not present in the study area or because any potential impacts would be slight but detectable, typically temporary, and localized. The regulatory and non-regulatory context and baseline conditions relevant to each impact topic also were analyzed in the process of determining if a topic should be retained or dismissed from further analysis. An outline of background information used in considering each topic is provided below along with the reasons for dismissing each topic from further analysis.

### **Geohazards**

NPS *Management Policies 2006* state that the NPS is charged with preserving naturally occurring geologic processes, such as landslides, floods, shoreline processes, etc., and trying to avoid the placement of new facilities in geologically hazardous areas. There are no known geohazards located within the study area. Therefore, the impact topic of geohazards was dismissed from further analysis.

### **Prime and Unique Farmland Soils**

The CEQ NEPA regulations (40 CFR 1508.27) require federal agencies to assess the impacts of their actions on soils classified by the Natural Resources Conservation Service (NRCS) as prime or unique farmland soils. According to the NRCS, there are no unique farmland soils within the study area, however, there are prime farmlands located in the study area (NRCS 2012). Based on the proposed ground-disturbing actions, and because the proposed actions would occur in previously disturbed areas, no prime farmland would be irreversibly converted to other uses. Therefore, the impact topic of prime and unique farmland soils is dismissed from further analysis.

## **Floodplains**

Executive Order 11988 (May 24, 1977), “Floodplain Management” and NPS Director’s Order 77-2: *Floodplain Management* require federal agencies to examine project impacts on floodplains and the potential risk involved in having facilities within floodplains in order to “take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health and welfare, and to restore and preserve the natural and beneficial values served by flood plains.” The North Cemetery Ridge area is not within the 100- or 500-year floodplain. There would be no impact on floodplains and no placement of facilities within the floodplain. Therefore, the impact topic of floodplains is dismissed from further analysis.

## **Wetlands**

Executive Order 11990 (May 24, 1977), “Protection of Wetlands” and NPS Director’s Order 77-1: *Wetland Protection* require an examination of impacts on wetlands. The USFWS identified and mapped wetlands in the park in 1989 (NPS 1999). No wetlands exist in the study area. Therefore, the impact topic of wetlands was dismissed from further analysis.

## **Wild and Scenic Rivers**

The Wild and Scenic Rivers Act establishes a system for the protection of rivers with outstanding scenic, recreational, geological, cultural, or historic values. These rivers are to be preserved in free-flowing condition for the benefit and enjoyment of present and future generations. There are no rivers within the North Cemetery Ridge area. Therefore, the impact topic of wild and scenic rivers was dismissed from further analysis.

## **Surface Water Quality or Quantity**

The 1972 Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977 (CWA), establishes national policy to restore and maintain the chemical, physical, and biological integrity of the nation’s waters, to enhance the quality of water resources and to prevent, control, and abate water pollution. There is relatively little surface water in the study area. Drainage from the North Cemetery Ridge flows southward, with Rock Creek draining the eastern side of the battlefield. The NPS currently monitors surface water quality at five locations within the park. In the Commonwealth of Pennsylvania, streams that do not have a water quality monitoring station, have not received water quality complaints, or are not near known pollution sources are not regularly monitored for water quality. The main source of water quality degradation in the park is from nonpoint sources such as runoff from agricultural lands and park developments, disturbance caused by cattle grazing, and stormwater runoff. Management actions associated with the alternatives under consideration would not directly impact surface water features on the site. Minor drainage diversions are placed around historic buildings and structures, along trails, and at newly constructed landscape features. A culvert would be installed underneath Hancock Avenue as part of the rehabilitation of the historic Ziegler’s Ravine. The culvert construction would replicate that which existed prior to the change of grade completed for the construction of the Cyclorama building parking lot and should reintroduce water quantity and direction of flow that existed prior to the 1960s grading. Impacts from this construction would be minor and temporary, since erosion and sediment control and best management practices would be used at locations where soils are disturbed as a part of the project. Collectively, these actions would have a local, short-term, negligible impact on surface water quality. Therefore, the impact topic of surface water quality or quantity is dismissed from further analysis.

## **Air Quality**

The 1963 Clean Air Act, as amended (42 USC 7401 et seq.) requires that federal land managers protect air quality. The NPS *Management Policies 2006* address the need to analyze air quality during park planning. The Adams County metropolitan area, in which Gettysburg National Military Park is located, is designated as a “maintenance area” for the 1997 eight-hour National Ambient Air Quality Standards for ozone. Implementation of any of the action alternatives proposed could produce a negligible amount of air pollution, in addition to the ambient air quality conditions at the park, which would possibly result from short-term emissions of nitrogen oxides and volatile organic compounds from the burning of fuel in vehicles and construction equipment, as well as emissions of particulate matter from dust on roadways, construction activities, and other dust-generating activities. However, these impacts would be short-term and minimal, and the proposed activities would not significantly impact local air resources, emissions budgets, or maintenance plans instituted by the Commonwealth of Pennsylvania, nor would it fail to maintain the 1997 eight-hour national ozone standard in the regionally combined metropolitan areas of York and Adams Counties. Therefore, the impact topic of air quality was dismissed from further analysis.

## **Noise and Soundscapes**

The park provides a quiet escape from the sounds of metropolitan life. The NPS strives to maintain or reduce existing noise impacts within the park, so the park can continue to serve as a refuge from the surrounding urban environment. The proposed action would not change the soundscape at the park. There may be temporary disturbances during construction, but these would be short-term and isolated near the Cyclorama building site. Therefore, the impact topic of noise and soundscapes was dismissed from further analysis.

## **Lightscares and Night Sky**

In accordance with NPS *Management Policies 2006* (NPS 2006a), the NPS strives to preserve natural ambient landscapes and other values that exist in the absence of man-made light. Due to the developed setting of Gettysburg enveloping the study area, the preservation of natural ambient lightscares would not be a primary project objective. However, the proposed action could result in an increase in light related to reuse of the Cyclorama building, and the park would continue to strive to limit the use of artificial outdoor lighting to that which is necessary for basic safety requirements and to ensure that all outdoor lighting is shielded to the maximum extent possible, to keep light on the intended subject and out of the night sky. Therefore, the impact topic of lightscares and night sky was dismissed from further analysis.

## **Terrestrial Wildlife**

NEPA requires federal agencies to assess the impacts of their actions on components of affected ecosystems. NPS *Management Policies 2006* state that it is NPS policy to protect the abundance and diversity of natural resources. Fauna in the area around the Cyclorama building has not been as closely studied as less developed areas within the park. Observational monitoring found American crow, American robin, blue jay, common grackle, eastern bluebird, eastern meadowlark, European starling, house finch, killdeer, mourning dove, northern cardinal, and northern mockingbird species in the area around the building (Yahner et al. 1989). Because of the developed landscape and large numbers of visitors in this area, other animals generally seen are those that are well adapted to human presence, such as squirrels, rabbits, and raccoons.

Management actions associated with the alternatives that propose demolition and/or removal of the Cyclorama building would produce long-term, beneficial impacts to terrestrial wildlife from increased habitat with slight long-term, negligible impacts where commemorative features would be placed. These slight long-term, negligible impacts would not noticeably change existing conditions with regard to wildlife and wildlife habitat in the park. Therefore, the impact topic of terrestrial wildlife was dismissed from further analysis.

### **Threatened, Endangered, Rare, and Special Concern Species**

The Endangered Species Act of 1973, as amended, requires agencies to examine impacts on all federally listed threatened or endangered species. NPS policy also requires examination of the impacts on state or locally listed species. Based on a review of USFWS federally listed species, there are no federally listed species under their jurisdiction that are known or are likely to occur in the study area. Therefore, it is the determination of the NPS that there would be no effect on any federally listed species. Based on a review by the Commonwealth of Pennsylvania's Division of Conservation and Natural Resources, no impact is anticipated to the species or resources of concern located in the vicinity of the project. A list of such species is included in appendix B. In early 2012, park staff spoke with staff from the Pennsylvania Department of Conservation and Natural Resources about the February 24, 2011 submittals for Pennsylvania Natural Diversity Inventory (PNDI) review (appendix B). Two PNDI requests for review were submitted: one for the Cyclorama building area (#20110223284698) and one for the Visitor Use Overlay Area (#20110222284443). Both reviews expired one year after their initial date of review, which was March 9, 2011. However, only one PNDI needs to be reissued: review # 20110223284698, which was assessed as No Impact Anticipated. The NPS would need to reapply under the same review number, and the same assessment will be awarded. The Visitor Use Overlay Area is no longer being considered within the alternatives, and therefore, there is no need to reapply for that particular review. As such, it is the determination of the NPS that there would be no effect on any state or locally listed species. Therefore, the impact topic of threatened, endangered, rare, and special concern species was dismissed from further analysis.

### **Unique Ecosystems, Biosphere Reserves, and World Heritage Sites**

There are no biosphere reserves, unique ecosystems, or World Heritage sites within the park. Therefore, the impact topic of unique ecosystems, biosphere reserves, and World Heritage sites was dismissed from further analysis.

### **Wilderness**

The Wilderness Act of 1964 established the National Wilderness Preservation System composed of federal lands designated as wilderness. The act mandates a policy for the enduring protection of wilderness resources for public use and enjoyment. The park does not include any land within the National Wilderness Preservation System designated pursuant to the Wilderness Act of 1964. Therefore, the impact topic of wilderness was dismissed from further analysis.

### **Climate Change**

Climate change refers to any major changes in average climatic conditions (such as mean temperature, precipitation, or wind) or variability (such as seasonality, storm frequency, etc.) lasting for an extended period (decades or longer). Recent reports by the U.S. Climate Change Science Program, the National



Academy of Sciences, and the United Nations Intergovernmental Panel on Climate Change (IPCC) provide clear evidence that climate change is occurring and will accelerate in the coming decades. There is strong evidence that global climate change is being driven by human activities worldwide, primarily the burning of fossil fuels and tropical deforestation. These activities release carbon dioxide and other heat-trapping gases, commonly called “greenhouse gases,” into the atmosphere (IPCC 2007).

There are two aspects of climate change that must be considered in an environmental impact analysis:

- human impact on climate change: i.e., through human actions, the potential to increase or decrease emissions of greenhouse gases that contribute to climate change
- the impact of climate change on humans: i.e., how are the resources that are managed likely to change in response to changing climate conditions, and how does that change or otherwise affect management actions and the impacts of those actions on the resource

As noted under the “Air Quality” section above, the alternatives evaluated in this EA would not notably alter greenhouse gas emissions at the national military park and are not expected to contribute to climate change nor would climate change affect the proposed actions evaluated in the alternatives. In consideration of these factors, the impact topic of climate change was dismissed from further analysis.

### **Energy Conservation Potential and Sustainability**

According to the NPS *Management Policies 2006*, “any facility development, whether it is a new building, a renovation, or an adaptive reuse of an existing facility, must include improvements in energy efficiency and reduction in greenhouse gas emissions for both the building envelope and the mechanical systems that support the facility” (NPS 2006a). The park strives to incorporate the principles of sustainable design and development into all facilities and park operations. Sustainability can be described as the result achieved by doing things in ways that do not compromise the environment or its capacity to provide for present and future generations. Sustainable practices minimize the short- and long-term environmental impacts of developments and other activities through resource conservation, recycling, waste minimization, and the use of energy efficient and ecologically responsible materials and techniques. The park also encourages suppliers, permittees, and contractors to follow sustainable practices.

The proposed project could change energy use and sustainability within the park through the addition of energy efficient systems in the Cyclorama building or recycled and reused materials as a result of the demolition and/or removal of the building from the park; however these changes in energy usage and materials would affect park operations and facilities. Therefore, impacts are addressed under the “Park Operations and Park Facilities” impact topic. Therefore, the impact topic of energy conservation potential and sustainability was dismissed from further analysis.

### **Ethnographic Resources**

Guidance for identification of ethnographic resources is found in National Register Bulletin 38: *Guidelines for Evaluating and Documenting Traditional Cultural Properties* (NPS 1998). Ethnographic resources are defined by the NPS as a “site, structure, object, landscape, or natural resource feature assigned traditional, legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it (NPS 1998). Ethnographic resources are equivalent to the term “Traditional Cultural Property.” A Traditional Cultural Property is eligible for inclusion in the National

Register, “because of its association with cultural practices or beliefs of a living community that are rooted in the community’s history, and which are important in maintaining the continuing cultural identity of the community” (NPS 1998). There are no properties that meet the definition of a Traditional Cultural Property within the study area. Therefore, the impact topic of ethnographic resources was dismissed from further analysis.

### **Indian Sacred Sites**

Executive Order 13007 (May 24, 1996), “Indian Sacred Sites,” requires managers of federal lands to avoid adversely affecting the physical integrity of Indian Sacred Sites. The park is not considered a sacred site by the Keeper of the National Register, nor is it an Indian Trust resource. Therefore, the impact topic of Indian Sacred Sites was dismissed from further analysis. In the unlikely event that human remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act of 1990 (25 USC 3001) would be followed.

### **Indian Trust Resources**

Secretarial Order 3175 (November 8, 1993) requires that any anticipated impacts to Indian Trust Resources from a proposed project or action by agencies of the Department of the Interior be explicitly addressed in environmental documents. There are no known Indian Trust Resources at the park. No land within the park is held in trust by the Secretary of the Interior for the benefit of Indians due to their status as Indians. Therefore, the impact topic of Indian Trust Resources was dismissed from further analysis.

### **Park Museum Collections**

NPS *Management Policies 2006* require the NPS “to collect, protect, preserve, provide access to, and use objects, specimens, and archival and manuscript collections in the disciplines of archeology, ethnography, history, biology, geology, and paleontology to aid understanding among park visitors, and to advance knowledge in the humanities and science.” The study area does not currently possess any facilities used to house the park’s collections. Although the Cyclorama building once housed the Cyclorama painting, which is a National Historic Object, the painting in its restored form no longer fits in the space, and the space cannot be modified to contain the painting. No items in the existing Cyclorama building fit within the context of the Scope of Collection Statement for the park (NPS 2006b, updated in 2011). Some elements of the building were defined as character-defining features during Historic American Buildings Survey (HABS) documentation, as required by the 1999 MOA. These features have been made available to various groups, and no one has offered to accept them. Therefore, the impact topic of park museum collections was dismissed from further analysis.

### **Environmental Justice**

Executive Order 12898 (February 11, 1994), “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations” requires all federal agencies to incorporate environmental justice into their missions by identifying and addressing disproportionately high and adverse human health or environmental impacts of their programs and policies on minorities or low-income populations or communities as defined in the U.S. Environmental Protection Agency’s (EPA) Revised Draft Environmental Justice Guidance. Although minority and low-income populations as defined in Executive Order 12898 reside in Adams County, there are no socially or economically

disadvantaged populations within the study area. None of the alternatives under consideration would result in disproportionately high or adverse environmental effects, including human health, economic, social, or environmental impacts on minority or low-income populations residing in Adams County. Negligible beneficial short- and long-term economic impacts on the local and regional economy would result from construction associated with some of the alternatives or from the operation of new visitor facilities. Therefore, the impact topic of environmental justice was dismissed from further analysis.

### **Local and Regional Economy**

The proposed project may have a negligible, one-time economic benefit to the local economy due to construction spending, including costs associated with labor and materials. Depending on the alternative selected, a new operation could provide a potential incremental increase in hours of visitor length of stay or produce an incremental increase in the number of visitors frequenting the surrounding area. This would result in a local, long-term, negligible beneficial impact on the local and regional economy. Impacts to the economy of gateway communities are addressed under the “Gateway Communities” impact topic; therefore, a duplicate analysis of local and regional economic impacts was dismissed from further analysis in this EA.

### **Land Use and Urban Quality**

The land use and urban quality of the park and surrounding area would not be impacted by the proposed project, and land use would remain consistent with the 1999 GMP. Therefore, the impact topic of land use and urban quality was dismissed from further analysis.

# 2

## ALTERNATIVES

In response to the March 2010 court order, this EA evaluates the proposed action to demolish the Cyclorama building and one non-demolition alternative. This EA also evaluates the no-action alternative, as required by the CEQ regulations. In addition, this chapter describes the alternatives that were considered but dismissed from detailed analysis, identifies the NPS preferred and environmentally preferable alternatives, and provides a summary of the environmental consequences.

### DEVELOPMENT OF ALTERNATIVES

The NPS used existing planning documents and studies to develop a range of reasonable alternatives to meet the project purpose, need, and objectives. These documents include, but are not limited to:

- General Management Plan/Environmental Impact Statement as approved in a 1999 ROD
- Advisory Council on Historic Preservation Consultation and Memorandum of Agreement
- Cultural Landscape Report: Defense of Cemetery Hill
- 2004 National Register Documentation for Gettysburg National Military Park

Development of alternatives also was based on information gained during internal and public scoping, additional public outreach, and agency consultation. The litigation resulting in the March 31, 2010 decision of the United States District Court also directed the NPS to undertake a “site-specific environmental analysis of the demolition of the Cyclorama Center” and to consider “non-demolition alternatives” before “any implementing action is taken on the Center.” Concepts found to be infeasible were dismissed and are noted below under “Alternatives Considered but Dismissed.”

This EA evaluates four alternatives:

- Alternative A: No-action: Mothballing of Cyclorama Building
- Alternative B: Demolition of the Cyclorama Building (NPS Preferred)
- Alternative C: Relocation of the Cyclorama Building Outside the Park by a Non-NPS Entity

The elements of these alternatives are described in the following sections. Impacts associated with the actions are outlined in “Chapter 4: Environmental Consequences.”

## ACTIONS COMMON TO THE ALTERNATIVES

The following section describes common actions that take place under the three alternatives (no-action and action alternatives).

The primary purpose of this EA is to evaluate alternatives for the final disposition of the Cyclorama building in accordance with the March 2010 court order. However, concurrent with the disposition of the building, the NPS also intends to pursue other rehabilitation prescriptions identified in the 2004 *Cultural Landscape Report: Defense of Cemetery Hill* (NPS 2004a), which are integral to implementing the direction of the GMP, regardless of which alternative for final disposition of the Cyclorama building is ultimately selected. Therefore, all of the alternatives evaluated in this EA would include the following prescriptions from the 2004 CLR:

- Reconfigure the existing Cyclorama building parking lot to rehabilitate Ziegler's Ravine
- Partially rehabilitate historic grades of Ziegler's Ravine by regrading a 350-foot section of roadway to follow the battle-era topography of Ziegler's Ravine
- Rebuild the 1863 historic fencing within the study area

These actions are described below.

**Reconfigure the Existing Cyclorama Building Parking Lot to Rehabilitate Ziegler's Ravine.** The Cyclorama building parking lot would be reconfigured to continue to provide parking for the Soldiers' National Cemetery. Approximately half of the area of the existing parking lot would be removed, allowing for restoration of battle-era topography in this area of Ziegler's Ravine. The reconfigured lot would provide 57 parking spaces for cars, four parking spaces for buses, and a trolley stop for the park and Gettysburg Borough shuttle bus, known as the Freedom Transit. This reconfigured lot would allow for the rehabilitation of the historic Ziegler's Ravine and other topographic features important to the 1863 battle and to commemorative circulation systems on North Cemetery Ridge. In addition, reconfiguration of the existing parking lot would permit the restoration or relocation of the 1st Massachusetts Sharpshooters, 88th and 90th Pennsylvania, and 12th Massachusetts monuments.

**Partially Rehabilitate Historic Grades of Ziegler's Ravine by Regrading a 350-foot Section of Roadway to Follow the Battle Era Topography of Ziegler's Ravine.** A 350-foot section of Hancock Avenue would be regraded as it passes through Ziegler's Ravine to reveal the ravine topography of the Battle Era. The construction of the Cyclorama building entrance road and parking lot created areas of fill approximately five feet deep, which have obscured the terrain of the Battle Era. The roadway would be substantially regraded to reflect the historic ravine area, a change in grade of about four feet. A culvert would be installed underneath Hancock Avenue as part of the rehabilitation of the ravine. Erosion and sediment control and best management practices would be used at locations where soils are temporarily disturbed as a part of the culvert installation.

**Rebuild the 1863 Historic Fencing within the Study Area.** One of the most important components of the site treatment would be the reconstruction of missing historic fences that defined the Battle Era fields and were an integral part of the formerly agricultural landscape. Some historic fences remain at the southern portion of the site, and these would be preserved and maintained in their Battle Era appearance. Others among them retained their historic alignment, but their appearance has been altered over time.

These fencelines would be rehabilitated to reflect their original Battle Era configuration and material. The majority of the historic fencelines are missing, however, and these fences would be reconstructed to the fullest extent known and possible to reflect their Battle Era locations and appearance. A few breaks in the fencelines would be proposed in order to accommodate the modern needs of vehicular roadways and pedestrian crossings. Specific fence recommendations can be found in appendix C.

## **ACTIONS COMMON TO ALTERNATIVES B AND C**

In addition to the prescriptions listed above, the alternatives that evaluate removal of the Cyclorama building (alternatives B and C) would include the following prescriptions from the 2004 CLR that can be implemented if the building is removed.

- Rehabilitate the historic grades of Cemetery Ridge in the footprint and immediate vicinity of the Cyclorama building
- Rebuild the commemorative-era sidewalk that was displaced by the Cyclorama building
- Relocate monuments displaced by the Cyclorama building to their historic footprint

These actions are described below.

**Rehabilitate the Historic Grades of Cemetery Ridge in the Footprint and Immediate Vicinity of the Cyclorama Building.** Grading is recommended in the vicinity of the Cyclorama building. After removal of the building, the grades around the footprint of the building, as well as areas just to the north and east of the building, would be rehabilitated to the fullest extent possible to match the historic terrain of Cemetery Ridge. These grading changes would be a primary method of rehabilitating and revealing the terrain of the Battle Era.

**Rebuild the Commemorative-era Sidewalk that was Displaced by the Cyclorama Building.** The commemorative-era sidewalk would be rebuilt following the historic alignment through Ziegler's Grove and Ziegler's Large Meadow. The recommended path material would be asphalt.

**Relocate Monuments Displaced by the Cyclorama Building to their Historic Footprint.** Some of the park's existing monuments have been relocated over time. With the removal of a portion of the Cyclorama building parking lot, monuments would be restored to their original locations. Each monument and marker within and/or directly adjacent to the study area would be assessed for potential activities that could potentially damage it. In addition, those monuments and markers that would require subsequent relocation to their historic sites would also be assessed to assure any intervention by the park would not damage them. A secure storage facility would be designated within the park. Monuments would be fully photo documented before any movement is undertaken, as well as during the removal and relocation processes. Work would be accomplished using a crane and lifting slings. This work would require careful and sensitive techniques to ensure there is no damage to any monument or monumental component. Monuments would be moved on park flat bed vehicles to the designated storage area and off-loaded by crane onto cribbing in an organized manner. Each monument would be treated as an individual entity and stored in its entirety in one location. It is very likely that this work would be conducted by the park's Monument Preservation Branch. In particular, the 90th Pennsylvania Infantry Monument, the 1st Massachusetts Sharpshooters Position, the 12th Massachusetts Position Marker, and the 88th Pennsylvania Infantry Position would be relocated to their historic positions. In addition, the Cyclorama

building sits on the historic site of the battle position, monuments, and cannon of the Battery F, 5th U.S. Artillery, so removal of the building would allow for this monument group to be returned to its original location. Specific monument treatments can be found in appendix C.

The 2004 *Cultural Landscape Report: Defense of Cemetery Hill* identifies additional rehabilitation prescriptions beyond those listed above; however, those prescriptions would be implemented at a future date and would be evaluated in separate compliance documents at the time that those prescriptions are implemented.

## **ALTERNATIVE A: NO-ACTION: MOTHBALLING OF THE CYCLORAMA BUILDING**

Alternative A would include the following actions outlined above:

- Reconfigure the existing Cyclorama building parking lot in order to rehabilitate Ziegler's Ravine.
- Partially rehabilitate historic grades of Ziegler's Ravine by regrading a 350-foot section of roadway to follow the Battle Era topography of Ziegler's Ravine.
- Rebuild the 1863 historic fencing within the study area.

In addition, the NPS would take the following additional actions under alternative A:

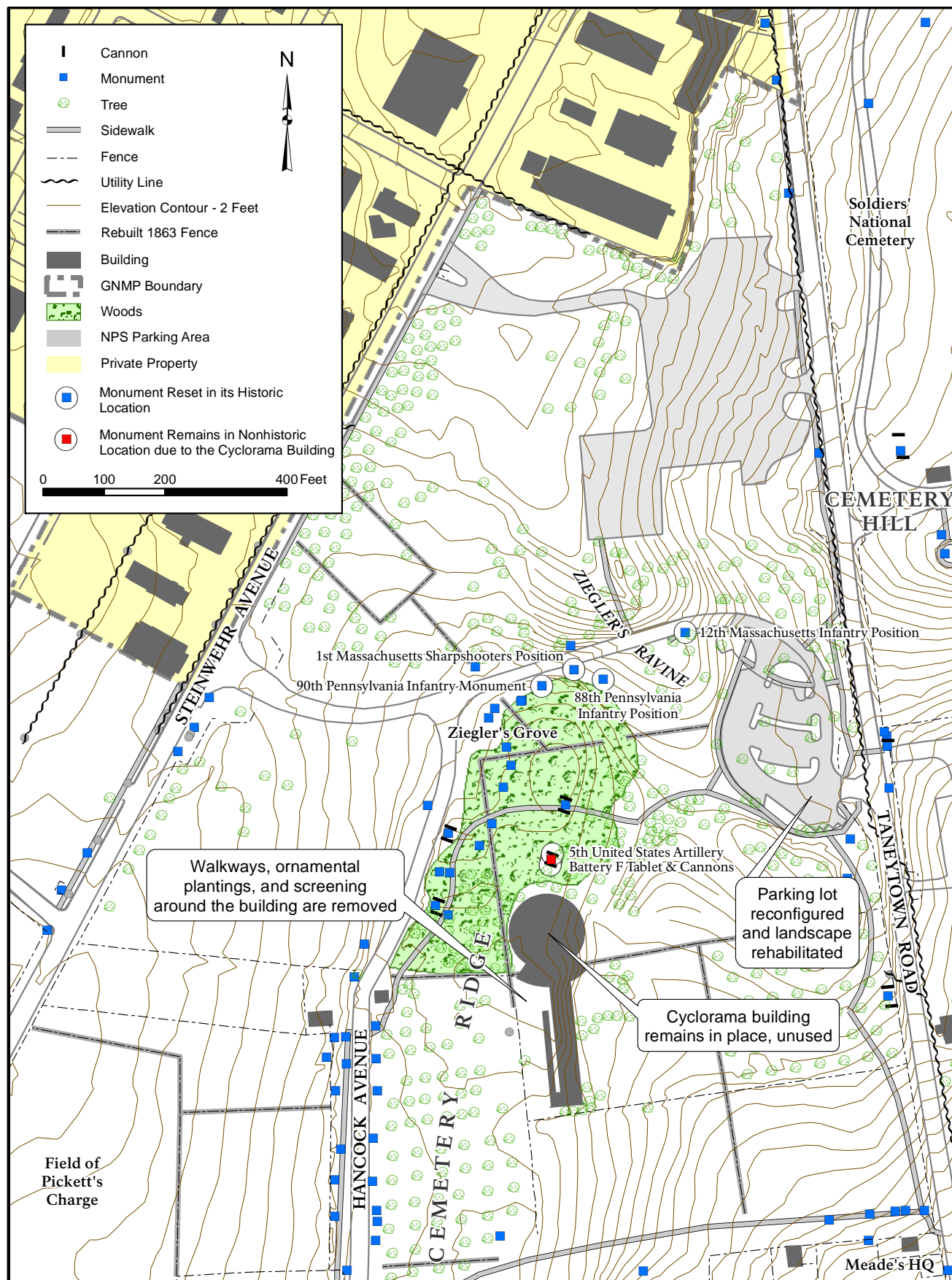
- Mothball the building.
- No visitor use of the building either internally or externally, meaning the ramp to the roof would be closed to public access.
- Remove all sidewalks and designed landscaping associated with the building.

Alternative A is depicted on figure 3, and the actions exclusive to alternative A are described below.

**Mothball the Building.** Mothballing of the building would keep the structure essentially as is and would protect it from vandalism and weather (figure 3). The purpose of mothballing would be to retain the building while minimizing costs associated with its maintenance. The NPS would use the previously prepared HABS documentation for the park (HABS-PA-6709 2005) to prepare a condition assessment that would set priorities for repairs necessary to stabilize the building over the long term. The park would evaluate the age and condition of the building's major elements: foundations, structural systems, exterior materials, roofs and gutters, plumbing, electrical and mechanical systems, special features, and site drainage.

As part of mothballing, the NPS would exterminate or control pests, such as termites and rodents, and seal their access to the interior of the building. The NPS would make general repairs to the building, as noted in the condition assessment, including repairing holes in the drum of the structure to ensure that water, pests, and insects cannot enter. The building also would be secured from vandals and break-ins. Vulnerable entry points would be sealed, and the NPS would update and repair the fire protection and security alarms. The NPS would design and install ventilation louvers that would equalize the effect of heat and moisture on the interior finishes. Painted plywood panels would be properly installed to protect window frames. Any remaining asbestos found in the building would be abated as part of mothballing efforts.





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Figure 3  
**Alternative A: No-action:  
Mothballing of the Cyclorama Building**



Existing entrance lobby of the Cyclorama building.

In addition, the park would secure or modify utilities and mechanical systems and manage vegetation that could potentially impact the exterior of the structure. The ponds and other water features would not be rehabilitated. Lastly, the park would develop and implement a monitoring and maintenance plan for the protection of the building. All property associated with the building and the building itself would remain in place until a future decision is made about the disposition of the building and its associated elements.

Under alternative A, the NPS would periodically check the structure to ensure that it is not sustaining any damage from the elements, such as heat and moisture, but would not spend any additional funds to rehabilitate any part of the structure. The park would retain responsibility for maintenance of sewer and water lines. The commemorative areas, including Ziegler's Grove, would continue to be mown as often as necessary to maintain a grass height of 2 ½ to 3 inches.

Construction traffic would enter the project site from Taneytown Road via the existing Cyclorama building parking lot. The southernmost bay of the Cyclorama building parking lot would be used as a temporary road and staging area for the contractor. This area would also provide parking for workers and construction equipment. Materials that could be vulnerable to theft and vandalism would be stored inside the building. The majority of the work would occur inside or very close to the building. The actual work would be expected to take approximately 30 days; however, with mobilization, demobilization, and inspections, the contract period would probably last up to six months. Because the Cyclorama building would be stabilized under this alternative, the utilities would be shut off but not demolished.

Alternative A would include additional hazardous materials surveys, to ensure the safety of the workers.

It is not anticipated that there would be any tasks involved in this alternative that would require sedimentation and erosion controls; however, if ground-disturbing activities would take place that have the potential to result in sedimentation or erosion at the site, such controls would be required and would be implemented.

Alternative A would not likely require any state or federal permits. Alternative A would preserve the Cyclorama building; therefore, the NPS does not anticipate the need to remove or recycle building materials.

**No Visitor Use of the Building either Internally or Externally, Meaning the Ramp to the Roof would be Closed to Public Access.** As part of alternative A, visitors would be able to view the exterior of the building. There would be no visitor or NPS use of the interior of the building, and there would be no interpretation of the building or interpretive signage other than that currently existing at the park museum and visitor center.

**Remove All Sidewalks and Designed Landscaping Associated with the Building.** To the extent possible, site specific rehabilitation of elements of the GMP and the CLR would continue to be implemented in the general area. These actions would include removal of walkways to and surrounding the Cyclorama building, as well as removal of ornamental plantings and screening put in place during the 1960s and 1980s.

## **COST OF ALTERNATIVE**

The estimated cost for implementation of alternative A would be \$1,873,161. More detailed cost estimate<sup>1</sup> information can be found in appendix D.

## **ALTERNATIVE B: DEMOLITION OF THE CYCLORAMA BUILDING (NPS PREFERRED)**

Alternative B would include the following actions outlined above:

- Reconfigure the existing Cyclorama building parking lot in order to rehabilitate Ziegler's Ravine.
- Partially rehabilitate historic grades of Ziegler's Ravine by regrading a 350 feet section of roadway to follow the Battle Era topography of Ziegler's Ravine.
- Rebuild the 1863 historic fencing within the study area.
- Rehabilitate the historic grades of Cemetery Ridge in the footprint and immediate vicinity of the Cyclorama building.
- Rebuild the commemorative era sidewalk that was displaced by the Cyclorama building.
- Monuments displaced by the Cyclorama building would be replaced in their historic footprint.

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<sup>1</sup> The cost estimates included in appendix D are approximate and may be based on parameters that differ slightly from the alternatives described in this EA.

In addition, the NPS would take the following additional actions under alternative B:

- Demolish the Cyclorama building.
- Remove all sidewalks and designed landscaping associated with the building.

**Demolish the Cyclorama Building.** Alternative B would include the demolition of the Cyclorama building (figure 4). The above-grade portions of the Cyclorama building foundation would be completely demolished and the debris would be removed. Heavy equipment would be used to break the structure into parts. These parts would then be placed in dumpsters and hauled to an approved landfill or recycling facility. The total area impacted by demolition would be 3.9 acres outside of the Cyclorama building footprint.

A Section 106 Case Report, dated June 15, 2009, was prepared as part of the planning and compliance process for rehabilitation of Cemetery Ridge. The report was approved by the SHPO on October 15, 2009. Provisions included in the MOA, which approved the demolition and removal of the Cyclorama building, were followed (appendix B). Architectural features from the building would not be retained for inclusion in the park's museum collections, as set forth in the park's Scope of Collections. These features have been made available to various groups, and no one has offered to accept them. As required by the MOA, internal and external features have been documented. Interpretation of the building, including its original interior and use, and information about Neutra and his role in Mission 66 would continue to be provided in existing interpretive information at the park museum and visitor center.

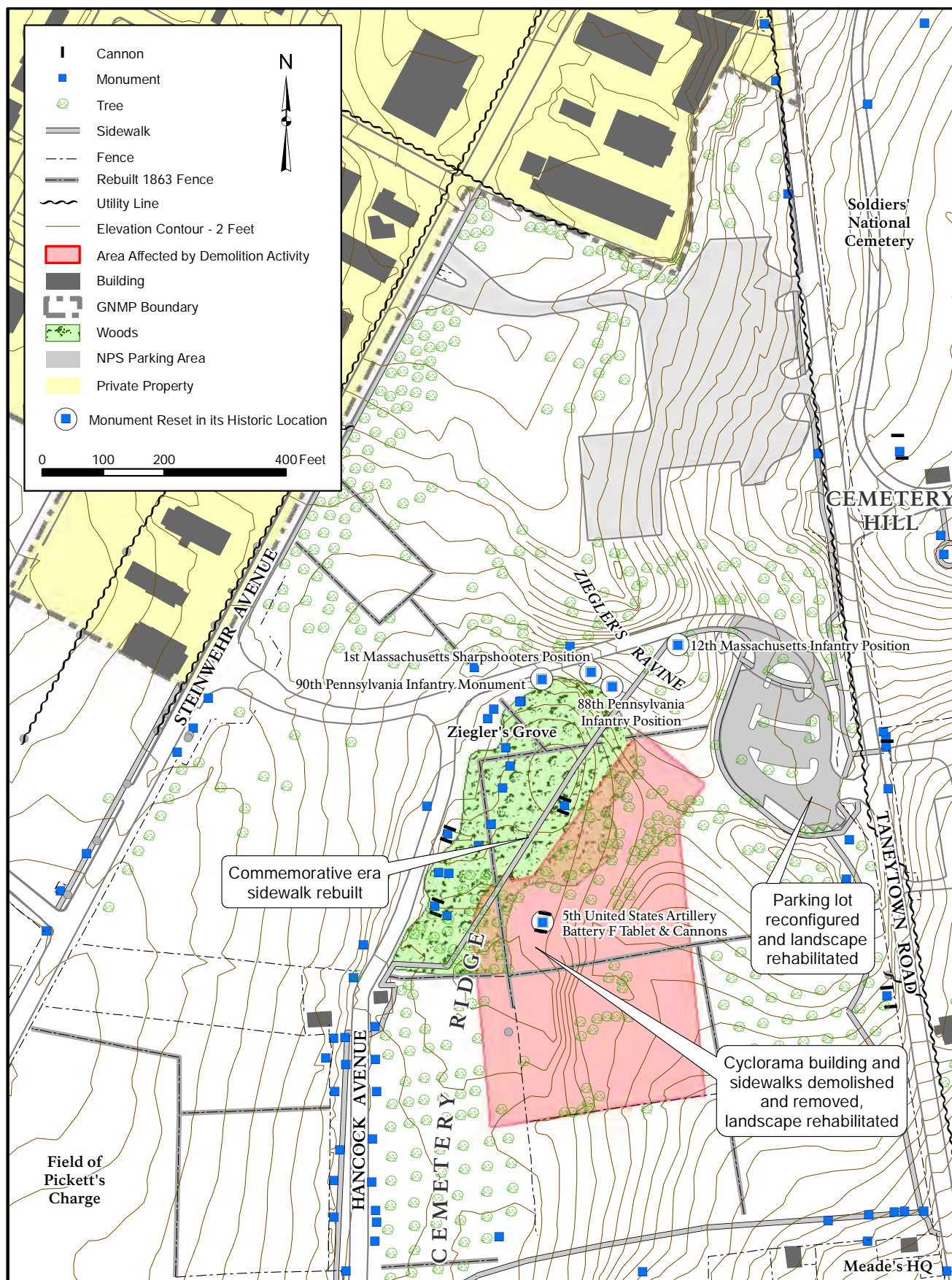
The park would retain responsibility for maintenance or removal of sewer and water lines. The NPS would implement a landscape maintenance plan for the rehabilitated landscape of North Cemetery Ridge. The commemorative areas, including Ziegler's Grove, would continue to be mown as often as necessary to maintain a grass height of 2 ½ to 3 inches. Fields east and south of Ziegler's Grove would be maintained with meadow grasses.

An initial survey of items that could be recycled would be conducted by the contractor, and a plan for the treatment of those items would be developed. The items would be removed first, before any demolition was initiated, and transported off-site to an appropriate recycling facility. The remainder of the building would be demolished using heavy construction equipment, such as trackhoes, excavators, and bull dozers.

Some of the construction debris may be broken up and used as fill within the void left by the building. The contractor, in collaboration with the NPS, would determine how much material would be used as backfill and how much would be transported to a landfill. The amount of material used as backfill would be dependent on the recontouring required to implement the CLR treatment plan (appendix C).

Construction and visitor traffic would be kept separate where possible. Construction traffic would enter the project site from Taneytown Road via the existing Cyclorama building parking lot. The southernmost bay of the existing Cyclorama building parking lot would be used as a temporary road and staging area for the contractor. This would provide parking for workers and construction equipment. An additional staging area could be required on the east side of the building where building materials to be recycled could be sorted and loaded onto dumpsters or trucks. An area of approximately 2,500 square feet would be required to accommodate this use.





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Figure 4  
Alternative B: Demolition and Removal  
of the Cyclorama Building (NPS Preferred)

A temporary construction fence would be installed around the building, the staging areas, and a portion of the temporary road. The fence would protect the public from construction activities, as well as protect the contractor's work and property. A perimeter of approximately 30 feet around the building is anticipated; however, more space may be required in some areas for construction equipment such as excavators and haul trucks, which would expand the fenced area. A fence around the staging area would be installed for additional security for the contractor. The fence would be installed at the beginning of the construction process and would remain in place until the work is complete.

Construction access to the building site would be limited to construction and authorized personnel. The site would be closed to the public for the duration of the construction and rehabilitation process, which would be approximately six months.

The park would take steps to protect important vegetation, especially the mature trees within the historic extent of Ziegler's Grove. The trees immediately around the drum of the building would need to be removed to accommodate the demolition equipment. Trees deemed necessary for the rehabilitation of Ziegler's Grove, according to the treatment plan in the CLR, would be replaced after construction in order to preserve the deciduous character of the grove. The remaining area within the construction zone that is impacted by either the excavation or construction traffic would be topped with clean topsoil, recontoured, and graded. In accordance with the CLR, this area would be planted with typical meadow grasses used elsewhere in the park and mowed. In addition, the battle-era features would need to be protected, as would the monuments and other commemorative structures, during construction. Appropriate sedimentation and erosion control methods would be implemented.

After completion of a hazardous materials survey, an abatement plan would be developed that would specify the proper abatement, removal, and disposal of all hazardous materials, including asbestos, according to EPA regulations. Hazardous debris would be disposed of at a certified disposal facility. Lead-contaminated construction debris would be tested using the Toxicity Characteristic Leaching Procedure process to determine the amount of lead by volume of debris. Debris that exceeds the EPA threshold of lead contamination would be disposed at a facility that accepts this type of lead-contaminated waste. It is anticipated that almost all of the debris would test lower than the EPA threshold. The contractor would be responsible for ensuring that all hazardous material is disposed of and transported in a safe manner and in accordance with applicable regulations. Once the hazardous materials are removed or abated, demolition would proceed.

Appropriate environmental permits and agreements for demolition and removal would be acquired by the contractor prior to the initiation of construction activities. The contractor would consult with the appropriate authority having jurisdiction in this area and ensure that the proper permits are in place prior to construction. The appropriate utility companies would be contacted and informed of the project and its impacts. Utilities would be identified, shut off, and terminated according to the specific company requirements.

As much of the building debris as possible would be recycled. Initial estimates indicate that the following materials could be recycled:

- Concrete: approximately 9,530 tons. This material could be used as either clean fill locally or recycled at an appropriate facility. It would take approximately 430 truckloads to transport the concrete debris to either a local site or to other recycling facilities.
- Metals: approximately 250 tons. It would take approximately 12 truckloads to transport this material.
- General Trash: approximately 130 tons. The trash could go to other types of recycling centers. Approximately 6 truckloads would be needed to transport this material.

**Remove All Sidewalks and Designed Landscaping Associated with the Building.** Site specific rehabilitation of elements of the 1999 GMP and the CLR would continue to be implemented in the general area. These actions would include removal of walkways to and surrounding the Cyclorama building, as well as removal of ornamental plantings and screening undertaken during the 1960s and 1980s.

## **COST OF ALTERNATIVE**

The estimated cost for implementation of alternative B would be \$3,380,427. More detailed cost estimate information can be found in appendix D.

## **ALTERNATIVE C: RELOCATION OF THE CYCLORAMA BUILDING OUTSIDE THE PARK BY A NON-NPS ENTITY**

Alternative C would include the following actions outlined above:

- Reconfigure the existing Cyclorama building parking lot in order to rehabilitate Ziegler's Ravine.
- Partially rehabilitate historic grades of Ziegler's Ravine by regrading a 350-foot section of roadway to follow the Battle Era topography of Ziegler's Ravine.
- Rebuild the 1863 historic fencing within the study area.
- Rehabilitate the historic grades of Cemetery Ridge in the footprint and immediate vicinity of the Cyclorama building.
- Rebuild the commemorative era sidewalk that was displaced by the Cyclorama building.
- Monuments displaced by the Cyclorama building would be replaced in their historic footprint.

In addition, the NPS would take the following additional actions under alternative C:

- Cut Cyclorama building into two or more pieces and remove from the park boundary with the condition that the new location of the building must be completely out of the historic district.
- Remove all sidewalks and designed landscaping associated with the building.



**Cut Cyclorama Building into Two or More Pieces and Remove from the Park Boundary with the Condition that the New Location of the Building Must be Completely out of the Historic District.**

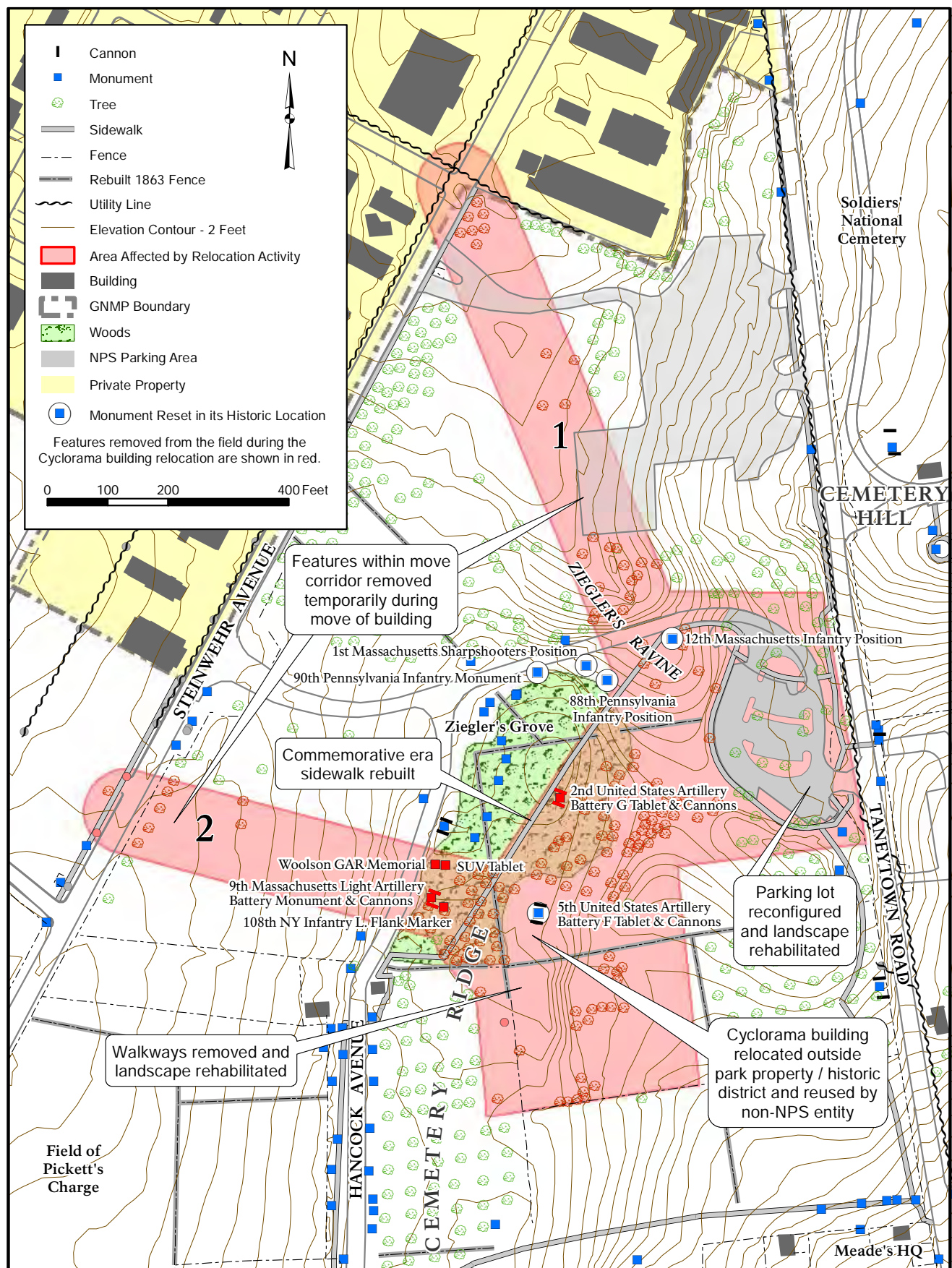
Under alternative C, the Cyclorama building would be relocated to a site outside of the park and the historic district by a non-NPS entity and adaptively reused for commercial or other purposes. Once the building was gone, the landscape on which the building now sits would be rehabilitated and returned to the condition of the historic 1863 battle and commemorative era appearance (figure 5).

The NPS could work with a partner through a cooperative agreement or advertise through the NPS program for others to accept ownership of, and then move, rehabilitate, and operate the building. The NPS would identify an owner and use that best fits the needs of the local community by working with the Borough of Gettysburg and adjacent townships to find locations outside the Gettysburg Battlefield Historic District, advertising widely for a new owner and use, and thoroughly evaluating potential responses.

The new owner would be responsible for all costs associated with moving the structure including site acquisition, building a foundation at the new site, relocation of the building to the new foundation, any rehabilitation or adaptive reuse of the structure, permitting, and other agency coordination. The extent of exterior rehabilitation and/or other exterior treatments would be at the discretion of the new owner, and would likely be based on the new use of the building. The level of interior rehabilitation also would be based upon the use selected by the new owner.

The new owner would need to select a site outside of the park boundary and historic district for the Cyclorama building. Permitting, zoning, engineering or other processes would be the responsibility of the new building owner, once the structure was disposed of by the NPS in accordance with policies and standards for disposal of structures. Depending upon the location selected by the new owner, necessary actions may include:

- zoning approval, if necessary
- topographic surveys of the selected move corridor
- engineering studies, including geotechnical reports of the new building site, archeological surveys of the move corridor and new site (if needed), and a hazardous materials survey of the Cyclorama building
- development of a move report, which includes strategies for moving the building, architectural and historical concerns, structural concerns, move concerns, neighboring properties (either NPS-owned or privately-owned), impact of move on adjacent structures, streets, and utilities, etc; the new owner would be required to seek approvals for and determine impacts to streets, outside structures, and utilities beyond the park's boundary
- development of an Engineer's Report detailing the extent of traffic impact along the move route and surrounding streets, including closures and emergency access
- design and construction documents for building of the selected move corridor and for new foundation and rehabilitation of the Cyclorama building on its new site
- regular communication and updates with the Commonwealth of Pennsylvania's SHPO, especially on specific building modifications required by the move process or the new use of the building, including its relocation to a site outside the park boundary and historic district
- approvals from affected landowners
- acquisition of necessary permits, from both the municipal government in which the new site is located and the Commonwealth of Pennsylvania



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Figure 5

Alternative C: Relocation of the Cyclorama  
Building Outside the Park by a Non-NPS Entity

The battle-era and commemorative features in the construction zone would be protected to the extent possible. The above-grade portions of the Cyclorama building foundation would be removed, and the landscape would be rehabilitated to be consistent with its appearance during the 1863 battle and its subsequent commemoration.

During relocation of the Cyclorama building, the handling of its character-defining features would be decided by the new owner. Such features include stair railings, ceramic tile, terrazzo floors, concrete stairs, doors and windows, light fixtures, water fountains, louvers, internal building signage, moveable walls both interior and exterior, thin patterned concrete walls of the drum, other important finishes, and other features defined by the existing HABS report. The level of preservation of these character-defining features would be the responsibility of the new owner.

As part of alternative C, visitors would be able to view the commemorative and 1863 battle landscapes, which are currently obstructed by the Cyclorama building. Interpretation of the building, including its original interior and use, and information about Neutra and his role in Mission 66 would continue to be provided in existing interpretive information at the park museum and visitor center.

The new owner would operate and maintain the exterior and if applicable, the interior, of the structure as needed to ensure the long-term preservation and use of the structure. The NPS would be responsible for maintaining or removing the water and sewer lines at the site. The NPS would implement a landscape maintenance plan for the rehabilitated landscape of North Cemetery Ridge. The commemorative areas, including Ziegler's Grove, would continue to be mown according to the stipulations of the CLR.

There are two potential scenarios for moving the Cyclorama building. Each has advantages and disadvantages which would have to be carefully considered. Potential options that would be considered include moving the building in at least two pieces or deconstruction and then reconstruction of the building, which would save important character-defining features of the original structure. It would not be possible to remove the Cyclorama building and relocate the building outside of the park and the historic district in one complete piece, due to the state right-of-way easement and other constraints.

*Relocation of the Cyclorama Building in Two Parts.* The first option is to move the Cyclorama building in two parts. One section would be the drum and apron, which includes the Cyclorama painting gallery, the first level exhibit space, the auditorium, and the mechanical spaces. The second section would be the entire office wing. The traditional strategy for moving a building is to lift it from below the first floor using long steel beams, or needle beams, because they are long and narrow and are threaded through the fabric of the building. The building is then raised off the ground using hydraulic jacks under the end of each steel beam. The operation of the hydraulic jacks is usually controlled by a computerized leveling system that ensures that the building is raised evenly to avoid excessive stress or cracking. Because the Cyclorama building sits on a very rocky site, excavating under the building would be impractical, as well as unsafe. Therefore, contractors who were consulted as part of this EA process proposed a method where needle beams would be inserted through the building at a distance approximately four feet above the lower floor and at six foot intervals. The lower walls of the building would then be saw-cut at a distance about four feet above the lower floor, thus freeing the building from its concrete slab foundation. This action would allow that portion of the building to be safely raised using the hydraulic jacks. Once this portion of the building is raised to a height of approximately six feet, then specialized steerable dollies would be placed under each steel beam on each side of the building. The weight of the structure would

then be transferred to the dollies and the hydraulic jacks removed. The dollies would also be governed by a computerized system that would ensure that the building would be moved with minimal stress.

Such an approach would require that prior to moving the structure, the contractor must have access to all sides of the building and have enough work space to insert the needle beams. Because the Cyclorama building is built into a hill, with the east entrance at the lower level and the west entrance at the upper level, the entire west side of the building would need to be excavated so that a level area completely surrounds the building. The excavation on the west side also would have to be wide enough so that the open sides of the excavation could be cut at an angle of repose to ensure that the earthen walls would not collapse. In addition, the ramp to the rooftop observation level would need to be detached and moved separately or demolished and reconstructed at the future site to provide the contractor with access to the west side of the building. The ramp's minimalist profile would allow it to be easily replicated. Some of the trees of Ziegler's Grove would need to be removed as part of the excavation.

Once the contractor could gain full access to all parts of the building, the office wing would be separated from the drum and apron and the process described above would begin. After the building is moved offsite, the first floor slab, foundations, and the remaining lower portion of the walls would be demolished. This material would be broken up and used to fill the void left by the building. In addition to preparing the building for the move, the move corridor also would have to be prepared. All obstacles, including monuments, tablets, markers, fences, and other cultural elements would need to be moved out of the corridor. Other non-historic elements, such as utility poles and wires, light poles, fire hydrants, and portions of buildings that intrude into the corridor would need to be moved or demolished.

Trees and shrubs that are in the way also would need to be removed. The grade of the move corridor would have to be leveled and graded to a slope negotiable by the loaded dollies. This would be done by importing clean fill soil, to bring all depressions up to a manageable grade. Finally, the surface would need to be finish graded and compacted to ensure a smooth operation. The contractor would most likely have to place steel plates on the surface of the move corridor to protect the path but also to distribute the weight of each dolly. The plates and clean fill soil would be removed after the building has been moved, and all objects removed from the move corridor would be replaced or rehabilitated. The imported clean fill soil would be used to recontour the former Cyclorama building location.

Concurrent with these operations, the new site would need to be prepared and the new foundations, floor slab, and lower section of walls constructed. The building would be moved onto the site and installed on the new base. The remainder of the project would follow normal construction procedures for rehabilitation.

*Relocation of the Cyclorama Building by Deconstruction and Reconstruction.* It would also be possible to deconstruct and then reconstruct the Cyclorama building, instead of moving the building in two pieces. The first step in this method would be to identify the important character-defining features of the Cyclorama building. This step was largely accomplished in the HABS documentation. If the selected contractor decides to retain these features, they would be dismantled, removed, and safely stored for reinstallation at the destination building site. The remainder of the building would be demolished, and then constituent parts would be reconstructed at the new building site. The character-defining features would be reinstalled.

The decision to retain any character defining features is the responsibility of the new owner. Methods for preserving these features are described in the Secretary's Standards for Historic Properties, the National Register criteria, and the HABS Report (HABS PA-6709). These features would include, but are not limited to:

- the exterior ribbed concrete skin and finish of the drum
- all of the random fieldstone veneer at the office wing and the drum piers
- the aluminum louvers
- the exterior sliding glass wall
- the aluminum clad sliding wall of the auditorium
- the interior wood panel pivoting wall of the auditorium
- the interior ramp finishes including the ceramic tile finish and the stainless steel "cage" and railing system around the ramp
- the rostrum and all associated elements including the inscription and stone veneer behind it
- the interior elements of the exhibit area such as the cast-in-place seating, pendant light fixtures, etc.
- the glass and stainless steel bridge between the Cyclorama gallery exit and the second floor lobby
- the lobby open stair and all railings including the rooftop observation railing
- all stainless steel lettering signage

The remainder of the building is a concrete slab and column structure that is mostly hidden by the interior finishes. Other pieces would be easily replicated, such as the bush hammered concrete walls of the apron that are exposed in the two-story lobby. Unique interior finishes, such as the terrazzo flooring, would be sampled and replicated at the new structure. The existing terrazzo flooring experienced extensive cracking due to building settlement early in the life of the building. The exterior of the drum is a very thin, six inch concrete skin with a delicate rib pattern that results from the tongue and groove boards used in the form work.

Construction and visitor traffic would be kept separate where possible. Construction traffic would enter the project site from Taneytown Road via the existing Cyclorama building parking lot. The southernmost bay of the existing Cyclorama building parking lot would be used as a temporary road and staging area for the contractor. This would provide parking for workers and construction equipment. For the requirements necessitated by the large amounts of imported clean fill soil to level the move path, the fill soil would be brought in and installed as the path was being developed. This would eliminate the need for another large staging area for the clean fill soil and eliminate the need to load and haul it twice. Another staging area for soil excavated around the building for access to the lower level would be located as close to the building as practical without impeding the move corridor. A minimum of 2,500 square feet would be required for staging construction materials.

Where the move path of the building crosses or uses public roads, traffic would need to be diverted for the period of time required to prepare the road, move the building, and remove any items used to protect the road. In some areas, steel plates would be used to protect the road or other travel surfaces. If the building is moved in several smaller pieces, the corridor would be smaller, but it would still be the same length. Additional trips may be required with increases in traffic congestion.

A temporary construction fence would be installed around the building, the staging areas, and a portion of the temporary road. The fence would be six feet in height and would protect the public from construction activities, as well as protect the contractor's work and property. A fence around the staging area would be installed for additional security for the contractor. The fence would be installed at the beginning of the construction process and remain in place until the building work is complete. The construction area around the building would be determined by the amount of excavation required to provide access to the lower level of the building. The excavated clean fill soil would need to be stockpiled as close as possible to the building for landscape rehabilitation once the building is moved.

The extent of the excavation would also include a "lay back zone" to prevent the side of the excavation from sliding or collapsing without the use of temporary retaining walls. Fencing would be installed no more than approximately 30 feet beyond the construction zone, staging areas, and access road. The fenced areas are to be kept at the minimum required in order to limit the construction impacts to the park. The construction fencing would not be installed around the move path areas unless specific conditions require it. The area would be too large to fence economically, and there should be no items requiring security. The contractor would still be required to ensure the safety and security of workers and others in the move zone.

The main move corridor, determined by the choice of relocation site, would require the import of clean fill soil to create an even graded path, approximately 140 feet wide for the widest element of the building, which is the drum. The grade of the route would have no abrupt changes, since the moving dollies can only accommodate a 12-16 inch grade change over the entire length of the structure. Once the building is moved, additional construction traffic would result from the removal of the imported clean fill soil for the move path. The rehabilitation of the landscape around the original building site would also generate more construction traffic.

During construction access to the building and the immediate area would be limited to construction and authorized personnel. The construction period for the preparation, the move, and the reassembly of the Cyclorama building would take approximately one to one and a half years. The preparation and move time would be approximately four months. This includes the preparation of the building for the move, including the excavation around the building, the selective demolition, cutting the building parts free from the foundations, preparation of the move corridor, and the actual move. Concurrent with this process, the new building site would be prepared and the new foundation installed. Once the building is moved and set in place, the completion of the project depends on the new owner's use for the building.

The park would identify important vegetation, including the full grown trees in Ziegler's Grove, to assure that the contractor protects these resources during demolition or moving of the building. The trees immediately around the drum of the building would need to be removed to accommodate the excavation needed to access the lower level of the drum. In addition, the trees in the chosen move corridor would also need to be removed. Trees deemed necessary for the rehabilitation of Ziegler's Grove, according to the treatment plan in the CLR, would be replaced after construction in order to preserve the deciduous character and historic extent of the grove.

The first level floor and lower four feet of wall that is to be left onsite would be broken up and used to fill the void left from the building's removal. The remainder of the void would be filled with clean fill soil and contoured in accordance with the treatment plan. Imported clean fill soil used to level the move

corridor would also be reused to rehabilitate the immediate building site in order to conserve as much clean fill soil as possible.

The remaining area within the construction zone impacted by either the excavation or construction traffic would be topped with clean fill topsoil, recontoured, and blended with the surrounding grade. In accordance with the CLR, this area would be planted with typical meadow grasses used elsewhere in the park and mowed. Appropriate sedimentation and erosion control methods would be implemented.

After completion of a hazardous materials survey, an abatement plan would be developed that would specify the proper abatement, removal, and disposal of all hazardous materials, including asbestos, according to EPA regulations. Hazardous debris would be disposed of at a certified disposal facility. Lead-contaminated construction debris would be tested by the Toxicity Characteristic Leaching Procedure process to determine the amount of lead by volume of debris. Debris that exceeds the EPA threshold of lead contamination would be disposed at a facility that accepts this type of lead-contaminated waste. It is anticipated that almost all of the debris would test lower than the EPA threshold. The contractor would be responsible to ensure that all hazardous material is disposed of and transported in a safe manner and in accordance with applicable regulations. Once the hazardous materials are removed or abated, construction would proceed without further requirements.

Once the building's final destination is selected, the appropriate move route would be established. Within a 140-foot wide defined corridor, depending on the move configuration, all markers, tablets, monuments, fences, trees, and other cultural elements would be identified, and a plan would be developed to safely protect or move them to a temporary location. The consultant that assisted in the preparation of the EA proposed the use of steel plates to protect the road and to distribute the load of the building over a larger area. Other obstacles or elements, including signs, porches, or other building components would be identified and temporarily removed or protected. Trees in the path also would be removed. Once the building has been moved, the steel plates would be removed and the grade would be returned to its original condition. The cultural elements would be reinstalled according to the CLR, and other items and building elements would be repaired or reinstalled. The trees removed in the process would be replaced according to the CLR. In addition, the battle-era features would need to be protected.

Two move corridors have been outlined by the park, depending on the destination of the building. Move Corridor 1, as shown on figure 5, runs northeast from the drum of the building, to the east of a wooded area of the park, part of Ziegler's Grove. It then cuts back west at a diagonal until it intercepts with Steinwehr Avenue. Move Corridor 1 would result in impacts to a total area of 3.9 acres outside of the Cyclorama building footprint. Move Corridor 2, also shown on figure 5, runs slightly north and west from the drum of the Cyclorama building's current position and intercepts Steinwehr Avenue further south than Move Corridor 1. Move Corridor 2 would result in impacts to a total area of 6.1 acres outside of the Cyclorama building footprint.

The contractor would be responsible for obtaining the required permits and agreements for the move. Special super load permits from the Pennsylvania Department of Transportation would need to be acquired for any crossing or use of the Commonwealth's roads or right-of-way. These permits have extensive requirements and require much coordination. Depending on the final destination of the building, two state routes on the east and west sides of the site may be included in the move route. They are Steinwehr Avenue/Emmitsburg Road to the west and Taneytown Road to the east. The Emmitsburg Road



has a 50-foot right-of-way and the Taneytown Road has a 32-foot right-of-way. In addition, those areas beyond the immediate right-of-way that are needed to move the building would require specific agreements from each individual land owner. The appropriate utility companies would be contacted and informed of the project and its impacts. Utilities would be shut off and terminated in accordance with the specific company requirements. New utilities at the destination site would be the responsibility of the contractor.

Those materials that cannot be reused would be recycled, if possible. The private entity that receives the building would be responsible for all requirements and actions associated with construction and restoration at the receiving site.

**Remove All Sidewalks and Designed Landscaping associated with the Building.** Site specific rehabilitation of elements of the 1999 GMP and the CLR would continue to be implemented in the general area. These actions would include removal of walkways to and surrounding the Cyclorama building, as well as removal of ornamental plantings and screening undertaken during the 1960s and 1980s.

## **COST OF ALTERNATIVE**

The estimated cost for implementation of alternative C would be \$44,841,988. More detailed cost estimate information can be found in appendix D.

## **MITIGATION MEASURES**

To minimize environmental impacts related to the action alternatives, the NPS would implement mitigation measures whenever feasible. Although the exact mitigation measures to be implemented would depend upon the final design and approval of plans by relevant agencies, the following is a list of actions that could take place:

- All protection measures would be clearly stated in the construction specifications, and workers would be instructed to avoid conducting activities beyond the fenced construction zone.
- Fence all construction areas in order to keep related disturbances within an NPS-defined and minimal impact area required for construction.
- Minimize soil erosion by limiting the time that soil is left exposed and by applying other erosion control measures, such as erosion matting, silt fencing, and sedimentation basins in construction areas to reduce erosion, surface scouring, and discharge to water bodies.
- Reseed all areas with native grasses or other NPS approved native vegetation.
- Remove invasive plants from construction areas using approaches prescribed in the NPS Integrated Pest Management Program.
- Implement measures to prevent invasive plants from returning to sites where they have been removed, such as ensuring that construction-related equipment arrives at the site free of mud or seed-bearing materials, and certifying that all seeds and straw material are weed-free.
- Rehabilitate areas that are temporarily disturbed during construction with native grasses and other native species as per NPS standards and consistent with the CLR.

- Implement a dust abatement program. Standard dust abatement measures could include the following elements: water or otherwise stabilize soils, cover haul truck, employ speed limits on unpaved roads, minimize vegetation clearing, and revegetate after construction.
- Retain below-ground portions of the Cyclorama building foundations.
- Document and protect features of the 1863 battle and commemorative landscapes.
- Rehabilitate features of the 1863 battlefield, including their historic grade and topography, and rehabilitate monuments, cannons, and other commemorative features to their historic locations and conditions.
- Immediately implement NHPA Section 106 procedures if and when any unknown significant archeological resources are uncovered during ground-disturbing activities.
- Recycle as much of the building's steel, glass, and concrete as possible.
- Implement a traffic control plan, as warranted. Standard measures include strategies to maintain safe and efficient traffic flow during the construction period.
- Implement measures to reduce the adverse effects of construction on visitor safety and experience.
- Implement an education program to ensure that visitors understand the need and benefits of the action.
- Implement a spill prevention and pollution control program for hazardous materials. Standard measures could include hazardous materials storage and handling procedures; spill containment, cleanup, and reporting procedures; and limitation of refueling and other hazardous activities to non-sensitive sites.
- If lead paint is found, implement a lead abatement plan to protect employees, contractors, and visitors from lead-contaminated materials.
- If asbestos is found, implement an asbestos-abatement plan to protect employees, contractors, and visitors from asbestos-contaminated materials.
- Implement standard noise abatement measures during construction. Standard noise abatement measures could include the following elements: a schedule that minimizes impacts on adjacent noise-sensitive uses, the use of the best available noise control techniques wherever feasible, the use of hydraulically or electrically powered impact tools when feasible, and location of temporary noise sources as far from sensitive uses as possible.

## **ALTERNATIVES CONSIDERED BUT DISMISSED FROM FURTHER ANALYSIS**

During the scoping process, including internal scoping, meetings with park representatives and meetings with the public, several other alternatives and elements were initially considered but were then dismissed from further analysis. These are described below with the reason for dismissal.

### **REHABILITATION OF THE EXTERIOR AND INTERIOR OF THE CYCLORAMA BUILDING AND IMMEDIATE GROUNDS**

This alternative proposed the rehabilitation of both the exterior and the interior of the Cyclorama building to its original condition, except for the active elements, such as the water features and the moveable wall. This would include repairs to the drum and recoating of the drum with white silica concrete coating in order for the building to resemble its original appearance. The balance of the exterior of the building would be cleaned, and any exterior repairs would be executed. The immediate landscape surrounding the building would be rehabilitated and maintained. The interior would be fully rehabilitated, although the

restored Cyclorama painting could not be reinstalled, since in its restored form, the Cyclorama painting with its diorama exceeds the size of the Cyclorama building gallery in both diameter and height. The office wing would be rehabilitated for use, and the former Cyclorama gallery would be available for visitors to experience. This alternative was eliminated from further consideration because it would not be practical from a park operations standpoint, and it would be uneconomical to rehabilitate the building for a use it could no longer fulfill. Previous planning documents prepared by the NPS and management decisions made in the approved 1999 GMP determined that the NPS has no need for continued use of the building and that its retention is in conflict with the overall goals and purposes of the park to preserve the landscape and setting of the 1863 battle and commemorative landscape.

### **REHABILITATION OF THE EXTERIOR OF THE CYCLORAMA BUILDING AND IMMEDIATE GROUNDS AND ADAPTIVE REUSE OF THE INTERIOR FOR NPS PURPOSES**

This alternative proposed the rehabilitation of the exterior of the Cyclorama building to its original condition, except for the active elements, such as the water features and the moveable wall. This would include repairs to the drum and recoating of the drum with white silica concrete coating in order to resemble its original appearance. The balance of the exterior of the building would be cleaned, and any exterior repairs would be executed. The immediate landscape surrounding the building would be rehabilitated and maintained. The interior would be rehabilitated for use by the NPS. This alternative was eliminated from further consideration because previous planning documents prepared by the park and management decisions made in the approved 1999 GMP determined that the NPS has no need for the continued use of the building and that its retention is in conflict with the overall goals and purposes of the park to preserve the landscape and setting of the 1863 battle and subsequent commemorative landscape.

### **RELOCATION BY NPS OF THE CYCLORAMA BUILDING TO A SITE WITHIN THE PARK BUT OUTSIDE OF THE VISITOR AND PARK SERVICES OVERLAY AREA**

This alternative proposed the relocation of the Cyclorama building to a site within the park but outside of the Visitor and Park Services Overlay Area. The building would be relocated to a site to be determined in the Major Battle Action Area, Battlefield Commemorative Area, or Other Resource Area, identified in the 1999 GMP. One of the sites proposed by the public included the old site of the Home Sweet Home Motel and its surrounding grounds, where a Union counterattack on July 3, 1863 devastated the left flank of Pickett's Charge. Another site proposed by the public was the property formerly occupied by the National Battlefield Tower, the ground which at the time of the battle was imperative to Union troop movement and massing in the conflict for control of Cemetery and Culp's Hill. Both sites fall within the Major Battle Action Area. The building would be moved in at least two sections: the drum/apron and the office wing. A foundation would be built onsite, and the sections would be moved and rejoined. The Cyclorama building would then be rehabilitated to resemble its original appearance, except for the active elements, such as the water features. NPS would seek a productive use for the building, and the interior would be rehabilitated to support the function. Productive uses might include office space or other purposes yet to be determined. However, once the structure is relocated from its existing location, it is removed from the originally designed context and, in all likelihood, would no longer sustain its National Register eligible integrity. This alternative was eliminated from further consideration because the action would introduce a conflicting modern structure into the Major Battle Action Area, Battlefield Commemorative Area, or other Resource Area, which would be inconsistent with the management decisions made in the GMP planning process and formalized in the 1999 GMP's Record of Decision to remove such intrusions on the

1863 landscape and commemorative landscape. In addition, previous planning documents prepared by the NPS and management decisions made in the approved 1999 GMP determined that the NPS has no need for continued use of the building.

### **RELOCATION BY NPS OF THE CYCLORAMA BUILDING TO A SITE WITHIN THE PARK AND THE VISITOR AND PARK SERVICES OVERLAY AREA**

This alternative proposed the relocation of the Cyclorama building to a site within the park and within the Visitor and Park Services Overlay Area. The building would be moved in at least two sections: the drum/apron and the office wing. A foundation would be built onsite, and the sections would be moved and rejoined. The Cyclorama building would then be rehabilitated to resemble its original appearance, except for the active elements, such as the water features. NPS would seek a productive use for the building, and the interior would be rehabilitated to support the function. Productive uses might include office space or other purposes yet to be determined. This alternative was eliminated from further consideration because the 1999 GMP and subsequent studies have indicated no feasible use of the building by the NPS. Additionally, once the structure is relocated from its existing location, it is removed from the originally designed context and, in all likelihood would no longer sustain its National Register eligible integrity. Relocating the Cyclorama building to the Visitor and Park Services Overlay Area would physically remove the building from the Major Battle Action Area identified in the 1999 GMP; however it would not remove the building from the historic viewshed from as far away as West Confederate Avenue. Thus, relocating the Cyclorama building to the Visitor and Park Services Overlay Area would be inconsistent with the management decisions made in the GMP planning process and formalized in the 1999 GMP's Record of Decision to remove such intrusions on the 1863 landscape and commemorative landscape.

### **RELOCATION AND USE BY NPS OF THE CYCLORAMA BUILDING TO A SITE OUTSIDE OF THE PARK**

This alternative proposed the relocation of the Cyclorama building to a site outside the park by the NPS. The building would be relocated to a site to be determined outside of the park boundaries. This alternative was eliminated from further consideration because previous planning documents prepared by the NPS and management decisions made in the approved 1999 GMP determined that the NPS has no need for continued use of the building. The expense of moving the building would also be substantial, and once the structure is relocated from its existing location, it is removed from the originally designed context and, in all likelihood would no longer sustain its National Register eligible integrity.

### **SELECTIVE DEMOLITION OF PARTS OF THE CYCLORAMA BUILDING AND THE REHABILITATION OF SOME ELEMENTS AS A MEMORIAL**

This alternative proposed the demolition of parts of the Cyclorama building and the rehabilitation of the remaining elements as a memorial. This alternative was eliminated from further consideration because in order to accomplish the goals of the GMP, all intrusions into the battlefield have to be removed. Leaving any part of the Cyclorama building standing would still impact the historic viewshed and is not considered a feasible alternative by the NPS. Selective demolition would also diminish the building's National Register eligibility. Thus, retaining a portion of the Cyclorama building as a visible memorial

would be inconsistent with the management decisions made in the GMP planning process and formalized in the 1999 GMP's Record of Decision to remove such intrusions on the 1863 landscape and commemorative landscape.

**CYCLORAMA BUILDING STAYS IN PLACE AND IS ADAPTIVELY REUSED BY A LESSEE, SUBJECT TO RESTRICTIONS ON THE NATURE OF THE USE AND LENGTH OF TIME FOR A PROSPECTIVE TENANT TO COME FORWARD AND AN AGREEMENT TO BE REACHED**

This alternative proposed to adaptively reuse the Cyclorama building within the park, by a non-NPS entity. The NPS would use a cooperative agreement or advertise through the NPS leasing program to identify a non-NPS entity to lease, rehabilitate, and operate the building. Selection of a tenant would be based on the proposal for a use that best fits within the park's legislation, significance, and mission. Firm timeframes and schedules would be established for the acquisition of the necessary funding and completion of restoration efforts. The tenant would be required to rehabilitate the exterior of the Cyclorama building to its original condition, including repairs to the drum and recoating of the drum with white silica concrete, and the tenant would be responsible for implementing all costs associated with this alternative. The ponds and other water features would not be rehabilitated. The battle-era and commemorative features in the construction zone would be protected. All property associated with the building and the building itself would become the responsibility of the tenant. Depending on its ultimate use, architectural elements may be incorporated into the reuse of the building. Exterior rehabilitation of the Cyclorama building would be in accordance with *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes* and would be required of any tenant. The exact configuration of the interior would depend on the selected use; however, the existing mechanical, electrical, and plumbing systems would be replaced with energy efficient systems. Depending on the selected use of the building, visitors may have the opportunity to access the rehabilitated interior of the Cyclorama building and would have the opportunity to experience the rehabilitated exterior of the building and possibly visit the viewing platform to see the site of Pickett's Charge via a rehabilitated ramp.

This alternative was initially developed by the NPS in response to a public comment that expressed desire to see such adaptive reuse of the Cyclorama building in its current location. As noted above, the park has no use for the building; however, responding to public input, the NPS gave serious consideration to whether or not use of the building in place by a non-NPS entity could be a feasible alternative. The alternative was further developed and a preliminary impact analysis was done to test the alternative's feasibility. Having evaluated the alternative against the purpose and need and analyzed the potential impacts on the North Cemetery Ridge landscape, the NPS ultimately dismissed this alternative from further consideration. Similar to the other adaptive reuse alternatives dismissed above, the NPS purpose in taking action is to implement the decisions in the approved GMP and the CLR for the North Cemetery Ridge area. This alternative would be inconsistent with those decisions because the Cyclorama building would remain as a visible intrusion on the 1863 landscape and commemorative landscape, preventing the rehabilitation needed in order to fulfill the park's purpose and significance. Therefore, this alternative has been dismissed.

## SUMMARY COMPARISON OF THE ALTERNATIVES

Table 1 provides a summary of the alternatives presented above.

<b>Table 1. Summary Comparison of the Alternatives</b>			
<b>Alternative Element</b>	<b>Alternative A: No-action: Mothballing of the Cyclorama Building</b>	<b>Alternative B: Demolition of the Cyclorama Building (NPS Preferred)</b>	<b>Alternative C: Relocation of the Cyclorama Building Outside the Park by a Non- NPS Entity</b>
<b>Cyclorama Building Actions</b>	The Cyclorama building would be mothballed.	The Cyclorama building would be demolished.	The Cyclorama building would be cut into two or more pieces and removed from the park boundary with the condition that the new location of the building must be completely out of the historic district.  The building would be moved in at least two pieces or the building would be deconstructed and then reconstructed.
<b>Cyclorama Building Interior</b>	The park would make general repairs to the interior of the building for the purpose of stabilizing, waterproofing, and insect-proofing.	The Cyclorama building would no longer exist.	The exact rehabilitation effort would depend on the selected use.
<b>Cyclorama Building Exterior</b>	The park would make general repairs to the exterior of the building for the purpose of stabilizing, waterproofing, and insect-proofing.	The Cyclorama building would no longer exist.	The exact rehabilitation effort would depend on the selected use.
<b>Responsibilities</b>	The NPS would be responsible for carrying out the actions included in alternative A.	The NPS would be responsible for carrying out the actions included in alternative B.	A non-NPS entity would relocate the Cyclorama building outside of the park and historic district. The entity would be responsible for all costs associated with moving the structure, including site acquisition, building a foundation at the new site, relocation of the building to the new foundation, any rehabilitation or adaptive reuse of the structure, permitting, and agency coordination.
<b>Visitor Access</b>	Visitors and NPS staff would not use or access the building.	The Cyclorama building would no longer exist, so there would be no visitor access to the building.	Depending on the use, visitors may have access to the interior of the Cyclorama building.

<b>Table 1. Summary Comparison of the Alternatives (continued)</b>			
<b>Alternative Element</b>	<b>Alternative A: No-action: Mothballing of the Cyclorama Building</b>	<b>Alternative B: Demolition of the Cyclorama Building (NPS Preferred)</b>	<b>Alternative C: Relocation of the Cyclorama Building Outside the Park by a Non- NPS Entity</b>
<b>Viewing Ramp</b>	The ramp to the roof would be closed to public access.	The Cyclorama building viewing ramp would no longer exist.	The viewing ramp would need to be detached and moved separately or demolished and reconstructed at the future site to provide the contractor with access to the west side of the building. The ramp's minimalist profile would allow it to be easily replicated if the new owner desires to reconstruct it.
<b>Cultural Landscape Elements: Historic Grading</b>	The Ziegler's Ravine historic grades would be partially rehabilitated and regraded, including a 350 feet section of Hancock Avenue.	The Ziegler's Ravine historic grades would be partially rehabilitated and regraded, including a 350 feet section of Hancock Avenue.  The historic grades of Cemetery Ridge would be rehabilitated in the footprint and immediate vicinity of the Cyclorama building.	The Ziegler's Ravine historic grades would be partially rehabilitated and regraded, including a 350 feet section of Hancock Avenue.  The historic grades of Cemetery Ridge would be rehabilitated in the footprint and immediate vicinity of the Cyclorama building.
<b>Cultural Landscape Elements: Commemorative Pathway</b>	There would be no commemorative era sidewalk in the study area.	The commemorative era sidewalk, which was displaced by the Cyclorama building, would be rebuilt.	The commemorative era sidewalk, which was displaced by the Cyclorama building, would be rebuilt.
<b>Cultural Landscape Elements: Sidewalks and Fencing</b>	The 1863 historic fencing would be rebuilt within the study area.  All sidewalks and designed landscaping associated with the building would be removed.	The 1863 historic fencing would be rebuilt within the study area.  All sidewalks and designed landscaping associated with the building would be removed.	The 1863 historic fencing would be rebuilt within the study area.  All sidewalks and designed landscaping associated with the building would be removed.
<b>Cultural Landscape Elements: Monuments</b>	Monuments displaced by the Cyclorama building would remain in their non-historic locations.	Monuments displaced by the Cyclorama building would be replaced in their historic footprint.	Monuments displaced by the Cyclorama building would be replaced in their historic footprint.
<b>Existing Cyclorama Building Parking Lot</b>	The existing Cyclorama building parking lot would be reconfigured in order to rehabilitate Ziegler's Ravine and would continue to provide parking for the Soldiers' National Cemetery.	The existing Cyclorama building parking lot would be reconfigured in order to rehabilitate Ziegler's Ravine and would continue to provide parking for the Soldiers' National Cemetery.	The existing Cyclorama building parking lot would be reconfigured in order to rehabilitate Ziegler's Ravine and would continue to provide parking for the Soldiers' National Cemetery.



<b>Table 1. Summary Comparison of the Alternatives (continued)</b>			
<b>Alternative Element</b>	<b>Alternative A: No-action: Mothballing of the Cyclorama Building</b>	<b>Alternative B: Demolition of the Cyclorama Building (NPS Preferred)</b>	<b>Alternative C: Relocation of the Cyclorama Building Outside the Park by a Non- NPS Entity</b>
<b>Cost Estimate*</b>	\$1,873,161	\$3,380,427	\$44,841,988
<b>Meets Purpose and Need?</b>	No. The landscape of North Cemetery Ridge would not be fully rehabilitated to its 1863 and commemorative era appearance; the landscape would remain compromised by the presence of modern intrusions.	Yes. Demolition and of the building would allow for the greatest rehabilitation of the landscape of the North Cemetery Ridge to its 1863 and commemorative era appearance.	Yes. Relocation of the building would allow for the greatest rehabilitation of the landscape of the North Cemetery Ridge to its 1863 and commemorative era appearance if the building is deconstructed and reconstructed, however, if the building is moved in two pieces, certain elements of the 1863 and commemorative era appearance of North Cemetery Ridge may be permanently damaged, and inhibit the landscape from being rehabilitated fully.
*The cost estimates are approximate and may be based on parameters that differ slightly from the alternatives described in this EA.			

## SUMMARY OF ENVIRONMENTAL CONSEQUENCES

Table 2 provides a summary of the environmental consequences related to each alternative. A more detailed explanation of the impacts is presented in “Chapter 4: Environmental Consequences.”

<b>Table 2. Summary of Environmental Consequences</b>			
<b>Resource</b>	<b>Alternative A: No-action: Mothballing of the Cyclorama Building</b>	<b>Alternative B: Demolition of the Cyclorama Building (NPS Preferred)</b>	<b>Alternative C: Relocation of the Cyclorama Building Outside the Park by a Non- NPS Entity</b>
<b>Historic Structures</b>	The building would be maintained at a lower standard and would continue to degrade and have a worn appearance. However, the building would be retained and stabilized as a historic structure. The impacts would not be significant.	The demolition of the building would be an adverse impact: a permanent loss of a National-Register-eligible historic structure. After the building is demolished, water infiltration and runoff impacts to Meade's Headquarters and the Leister barn could be expected to decrease, resulting in a preservation of their external features and settings. The impacts would not be significant.	The deconstruction and removal of the building would be an adverse impact. Relocation is an alteration of the building's connection to the battlefield, which would diminish its historical integrity and eligibility for the National Register. After the building is removed, water infiltration and runoff impacts to Meade's Headquarters and the Leister barn could be expected to decrease, resulting in a preservation of their external features and settings. The impacts would not be significant.
<b>Cultural Landscapes</b>	The building, its adjacent walkways and parking lots, and ground disturbance associated with its construction have altered the cultural landscape. Maintaining the structure would continue to impede on the understanding and interpretation of the landscape. To the extent that native vegetation is restored and other landscape features returned, a beneficial impact would result. The impacts would not be significant.	Demolition of the building, sidewalk areas, and portions of the parking lot would have a large beneficial impact on rehabilitating the unique cultural landscapes within the study area. Beneficial impacts to the cultural landscape would result from restoration of topographic features in areas previously disturbed by construction of the Cyclorama building, sidewalks, and parking. The impacts would not be significant.	Impacts from the removal activities would have an adverse impact on the cultural landscape. These actions would include ground disturbance and operation of equipment in the building vicinity during construction, preparation of the building for relocation, and transport of the building. After the building was relocated actions to rehabilitate features of the 1863 and commemorative cultural landscapes also would have a beneficial impact. The impacts would not be significant.

**Table 2. Summary of Environmental Consequences (continued)**

Resource	Alternative A: No-action: Mothballing of the Cyclorama Building	Alternative B: Demolition of the Cyclorama Building (NPS Preferred)	Alternative C: Relocation of the Cyclorama Building Outside the Park by a Non- NPS Entity
<b>Archeological Resources</b>	Ground disturbing activities related to modifications around the building have the potential to adversely impact archeological resources. The likelihood of finding National Register-eligible archeological resources in the study area is minimal, as the area has been heavily disturbed. The impacts would not be significant.	Ground disturbing activities associated with demolition of the building and restoration of the 1863 landscape features have the potential to adversely impact archeological resources. The likelihood of finding National Register-eligible archeological resources in the study area is minimal, as the area has been heavily disturbed. The impacts would not be significant.	Ground disturbing activities associated with removal of the building, associated staging areas for construction, use of move corridors, and restoration of the 1863 landscape features have the potential to adversely impact archeological resources. The likelihood of finding National Register-eligible archeological resources in the building area is minimal, as the area has been heavily disturbed. However, National Register-eligible archeological resources could be lost or disturbed within the move corridors. The impacts would not be significant.
<b>Scenic Resources</b>	Adverse impacts would be expected from the continued obstruction of historic viewsheds by the dilapidated and modern building. The building would continue to interrupt the unique scenic historic views of Pickett's Charge and the Battle of Gettysburg. These impacts would not be significant.	Beneficial impacts would be expected from full rehabilitation of historic viewsheds on North Cemetery Ridge with the demolition of the Cyclorama building. The unique scenic and cultural resources of Pickett's Charge and the Battle of Gettysburg would be restored and allow for better visitor understanding of the history of the site. The impacts would not be significant.	Beneficial impacts would be expected from full rehabilitation of historic viewsheds on North Cemetery Ridge with the relocation of the Cyclorama building. The unique scenic and cultural resources of Pickett's Charge and the Battle of Gettysburg would be restored and allow for better visitor understanding of the history of the site. The impacts would not be significant.
<b>Local Roads and Park Access</b>	Temporary adverse impacts would be expected from minimal construction traffic related to routine maintenance for mothballing the building, but these would not be significant.	Temporary adverse impacts would be expected from construction traffic related to demolition of the building, but these would not be significant.	Temporary adverse impacts would be expected from construction traffic related to relocation of the building, but these would not be significant.

**Table 2. Summary of Environmental Consequences (continued)**

Resource	Alternative A: No-action: Mothballing of the Cyclorama Building	Alternative B: Demolition of the Cyclorama Building (NPS Preferred)	Alternative C: Relocation of the Cyclorama Building Outside the Park by a Non- NPS Entity
Gateway Communities	Adverse impacts would be expected from a potential reduction in business due to the mothballing of the building. The impact to the economic downturn on the Steinwehr Business Owners is unknown, so the true impact to gateway communities unknown. These impacts would not be significant.	Potential beneficial impacts could be expected from a possible increase in business for the Steinwehr Business Owners from a potential increase in visitors to the rehabilitated landscape at North Cemetery Ridge. If the rehabilitated landscape does not attract more visitors to the area, the economic conditions experienced by the gateway communities could remain the same. The impact of the economic downturn on the Steinwehr Business Owners is unknown, so the true impact to gateway communities is also unknown. These impacts would not be significant.	Potential beneficial impacts could be expected from a possible increase in business for the Steinwehr Business Owners from a potential increase in visitors to the rehabilitated landscape at North Cemetery Ridge. If the rehabilitated landscape does not attract more visitors to the area, the economic conditions experienced by the gateway communities could remain the same. The impact of the current economic downturn on the Steinwehr Business Owners is unknown, so the true impact to gateway communities is unknown. These impacts would not be significant.
Visitor Use and Experience	Adverse impacts could be expected, since the historic topography and key battlefield views would be blocked by the building. Visitor understanding of the key terrain would continue to be marred by the intrusion of the building. The impacts would not be significant.	Visitors would have improved access to the historic topography of the Union battle line along Cemetery Ridge. Visitors would have new opportunities to understand the key terrain of the Union line, which would improve visitor experience. Some visitors may not endorse demolition of the building due to its association with Neutra and Mission 66. The impacts would not be significant.	Visitors would have improved access to the historic topography of the Union battle line along Cemetery Ridge. Visitors would have new opportunities to understand the key terrain of the Union line, which would improve visitor experience. Some visitors may not endorse removal of the building due to its association with Neutra and Mission 66. The impacts would not be significant.
Park Operations and Park Facilities	The park would continue to conduct minor, routine repairs and landscaping, in addition to updating and repairing the fire protection and security alarms, which requires monitoring and additional expenditures. The minimal impacts identified would not be significant.	The park would decrease maintenance expenditures and responsibility for the vacant building. The impacts would not be significant.	The park would decrease maintenance expenditures and responsibility for the vacant building. The impacts would not be significant.

## **ENVIRONMENTALLY PREFERABLE ALTERNATIVE**

The environmentally preferable alternative is the alternative that causes the least damage to the biological and physical environment and best protects, preserves, and enhances historical, cultural, and natural resources. The environmentally preferable alternative is identified upon consideration and weighing by the Responsible Official of long-term environmental impacts against short-term impacts in evaluating what is the best protection of these resources. In some situations, such as when different alternatives impact different resources to different degrees, there may be more than one environmentally preferable alternative (43 CFR 46.30).

Alternative B best meets the park objectives of protecting and preserving cultural and natural resources by allowing for the complete rehabilitation of the landscape of the 1863 battle at Gettysburg and its veteran-designed commemoration. Based on the analysis of environmental consequences of each alternative in Chapter 4, alternative B is the environmentally preferred alternative. Although alternative B would result in short-term impacts to cultural and natural resources throughout the demolition process, demolition of the Cyclorama building would allow for the natural resources originally disturbed as part of the construction of the Cyclorama building to be rehabilitated to their original state.

## **NPS PREFERRED ALTERNATIVE**

The preferred alternative is the alternative that NPS believes would best accomplish the project's goals, objectives, and purpose and need. In selecting a preferred alternative, NPS must consider the associated impacts to natural and cultural resources. The NPS chose Alternative B: Demolition of the Cyclorama Building as its preferred alternative because it best meets the objectives of the 1999 approved GMP and is consistent with NPS management policies, laws, regulations and plans. Alternative B best meets the park objectives of protecting and preserving cultural and natural resources by rehabilitating the landscape of the 1863 battle at Gettysburg and its veteran-designed commemoration. The NPS has no need for continued use of the building and its retention is in conflict with the overall goals and purposes of the park to preserve the landscape and setting of the 1863 battle and commemorative landscape. Alternative B would also result in fewer impacts to park resources when compared to moving the building outside park boundaries, as described under Alternative C.

# 3

## AFFECTED ENVIRONMENT

This chapter describes existing environmental conditions in areas potentially affected by the proposed actions. Generally, the actions would occur within Gettysburg National Military Park, in the surrounding community of Gettysburg, or in Cumberland Township. The park comprises approximately 5,989 acres.

Generally, the resources in the immediate area of the Cyclorama building are described. However, one of the EA alternatives (alternative C) proposes moving the Cyclorama building outside of the park and the historic district to a site in adjacent townships; therefore a larger area is considered as the potential affected environment. The exact site for the building would be selected by others (non-NPS staff) at a later time, if this alternative is chosen for implementation. General information about the resources that could potentially be impacted by the EA alternatives is discussed for this broader area.

### HISTORIC STRUCTURES

#### GETTYSBURG CYCLORAMA BUILDING

With an international reputation and a large portfolio of built projects of many types, Richard Neutra was the most famous architect to work for the NPS at the time of the Gettysburg Cyclorama commission. In 1950, he became partners with Robert Alexander with the goal of expanding his practice to larger, more complex projects than his small, atelier-style office could accomplish. Neutra designed the Cyclorama building during the Mission 66 era to house the Cyclorama painting at the park and to serve as its primary visitor center facility.

The Cyclorama building is a Modernist, three-part asymmetrical structure made of large expanses of reinforced concrete, glass, and aluminum. Panels of local fieldstone on the rotunda piers and south wall relate to stonework found on historic barns and houses in the local area. The cylindrical rotunda at the north end of the structure is a solid white-ribbed concrete volume set on thin concrete piers and a recessed base. The long rectilinear form of the office wing extends to the south and features aluminum sash windows, concrete panels, and cantilevered ledges, emphasizing the strength of the modern materials and the building's abstract geometric forms. A lower fan-shaped wing containing the auditorium, corridors, and utility rooms creates an angular ribbed concrete form linking the rotunda and office wing.

Transparent areas of full height window walls at the east base of the rotunda and lobby area of the office wing contrast with the solidity of the adjacent concrete walls. The office wing transitions into the rotunda with an expanded area containing a 200 seat auditorium and mechanical spaces. The entire structure is 340 feet long from north to south with the rotunda portion roughly 100 feet in diameter. The rotunda, the highest part of the building, is approximately 40 feet tall and rises 58 feet above ground level (on a 17.5-foot pier) at its tallest point on the east side. The office wing is approximately 25 feet tall and 25 feet wide, not including an exterior concrete ramp.

The Cyclorama building exhibits a high level of historic integrity with only a few minor alterations and nearly all its original features and materials still intact. However, the building also has persistent maintenance problems such as leaky roofs and poor humidity control that have caused damage in some areas, particularly in the Cyclorama gallery.

The Cyclorama building was twice nominated by private individuals for National Historic Landmark status, and although it was not granted status, it was determined "eligible for listing" by the Keeper of the National Register on September 24, 1998. The building was included in the Gettysburg National Military Park and Soldiers' National Cemetery 2004 National Register documentation as a non-contributing resource to the themes of the park (NPS 2004b).

## **MEADE'S HEADQUARTERS**

Meade's Headquarters is a siding-clad log building, a single-family residence which was occupied during the 1863 Battle at Gettysburg by Major General George G. Meade and his staff as the headquarters of the Union Army of the Potomac (from the pre-dawn hours of July 2 until intense artillery fire on the afternoon of July 3 drove them from the farmstead). It was in this building on the night of July 2 that Meade met with his high command and decided to consolidate his defensive position and await Confederate movements. The result of that determination to continue the defensive use of the terrain of Cemetery Ridge, Cemetery Hill, and Culp's Hill eventually led to the Union victory at Gettysburg. The Council of War held in this house made it so important to the history and commemoration of the battle that it was included for preservation as one of the early purchases by the Gettysburg Battlefield Memorial Association in the mid-1880s. A frame two-story addition that had been attached to the house after the Civil War was removed by the Association soon after its purchase in order to rehabilitate Meade's Headquarters to its original appearance. During the early years of the development of the national military park, Meade Avenue was constructed in order to connect this site with the main thoroughfare of Hancock Avenue so that park visitors would have convenient access to the headquarters building. During the 1930s, the building was designated a National Historic Landmark because of its paramount importance and was documented through the HABS. The NPS continues to recognize its importance through audio and wayside exhibits and personalized interpretive programs at the site, and continues to maintain its battle-era appearance.

## **OTHER STRUCTURES: MONUMENTS AND CANNONS**

Monuments and cannon are also present in the area of North Cemetery Ridge. During the commemorative era, veteran soldiers, as well as the federal and state governments, placed monuments and markers on the battlefield to identify the locations of battle action. Additionally several cannons accompany battery monuments in the battle area to mark battle positions.



## **CULTURAL LANDSCAPES**

Gettysburg National Military Park contains historic and designed landscapes that are nationally significant and contribute to the story of the battle and its consequences. These landscapes, when combined with the historic structures, archeological resources, and museum objects and archives of the park, reflect the history of the battle and its significance to the Civil War and to U.S. history. Together, they provide one of the most complete physical records of a pivotal Civil War battle, its aftermath, and its legacy. The park and the Soldiers' National Cemetery are listed on the National Register, and the SHPO considers them to be eligible to become National Historic Landmarks. For this discussion, the development of the landscapes is also tied to and includes topographic features and relief, site elevation, slope orientation, rock exposure, and modification of soil types. These features are included in the evaluation of impacts to cultural landscapes.

### **1863 BATTLEFIELD LANDSCAPE**

The most extensive significant landscape at Gettysburg is its 1863 battlefield landscape. The grounds of North Cemetery Ridge occupied by the Cyclorama building contained several features that affected the outcome of the battle and defined this portion of that cultural landscape. These features included the stone walls, rider fences, and post fences associated with the David Ziegler, Peter Frey, and Abraham Brian farms that enclosed their fields and orchards, but were seized by the Union army for defensive purposes. The Brian Orchard and Ziegler's Grove were used as cover from shelling and as concealment from observation for both infantry and artillery. Some of these features still remain intact, while others have either been altered or removed in part or in total for the construction of the Cyclorama building. Primary among these is the David Ziegler Farm Field No. 9 Stone Wall, which was used first as cover and then was converted into breastworks purposes by the Union army.

### **CEMETERY AND COMMEMORATIVE LANDSCAPE**

The designed landscapes of the national cemetery and of the commemorative national military park also are nationally significant, defining the spaces that honored the fallen soldiers and the lines of battle. The grounds of the national cemetery, designed in 1863 by one of this country's first government landscape architects, William Saunders, are contiguous to and overlook the grounds of the Union rear along the Taneytown Road to the east of the Cyclorama building. The commemorative avenues, monuments, and other grounds improvements designed to unify the memorial aspects of the site as a national park form a network that encompasses much of the grounds associated with North Cemetery Ridge, Cemetery Hill, and the rear of the Union lines on the reverse slope of Cemetery Ridge. Hancock Avenue, considered by the early park designers as the main entrance to the park, connected the two designed landscapes (National Cemetery and National Park) by running from the cemetery on Cemetery Hill, through the low grounds of the David Ziegler farm, and continuing until reaching North Cemetery Ridge (from where it continued south to the Angle and to the Round Tops). The number of Union troops engaged here and the importance each military unit gave to its participation on the site is made clear by the number of monuments and markers that surround the building site.

The early park designs also included a formal pedestrian walk that connected the Soldiers' National Cemetery to North Cemetery Ridge and Ziegler's Grove, where one of five steel observation towers had been built to float at tree level and overlook the central part of the battlefield. With the subsequent connection of Meade's Headquarters to Hancock Avenue by the construction of Meade Avenue and the erection of the park's largest flagpole for the national colors, the park design heightened public perception of Meade's command decisions and the victory at Gettysburg that perpetuated United States ideals.

## **GEOLOGY**

The Cyclorama building is situated on Cemetery Ridge underlain by York Haven Diabase. Boulders from the York Haven Diabase of the Gettysburg sill litter the slopes. The diabase in the thick sill is relatively coarse-grained. The outcrop appears mottled black and white, with gray plagioclase and black augite as the primary minerals.

At this location, the elevation is roughly 600 feet and is situated between Hancock Avenue and Taneytown Road. Surrounding areas gently slope downward 2 to 12 feet in all four cardinal directions, with the exception of northeast where there is a gently decreasing slope followed by a gradual rise toward Cemetery Hill (Ziegler's Ravine). Construction of the Cyclorama building resulted in modification of the landscape from the conditions of 1863 and the commemoration. The construction of the Cyclorama building entrance road and parking lot filled in portions of Ziegler's Ravine.

## **SOILS**

The soils within and around the Cyclorama building footprint, are classified as Lehigh-Neshaminy Association soils. The following soil types have been identified within the study area: Neshaminy channery silt loam (NaB and NaC), 3 to 15 percent slopes; Lehigh channery silt loam (LhA and LhB), 3 to 5 percent slopes; and Urban land (Uc). Below are descriptions of the soil map units known to exist within the study area. Absence of an entry within the table below indicates that the data related to that soil type has not been estimated (USDA 1991).

<b>Table 3. Study Area Soil Map Units</b>						
<b>Soil Type</b>	<b>Depth to Bedrock</b>	<b>Depth to Seasonal High Water</b>	<b>NRCS Farmland Class (Land Capability Class)</b>	<b>Erodibility (1<sup>st</sup> horizon K factor)</b>	<b>Runoff Potential (hydrologic soil group)</b>	<b>Parent Material</b>
<b>LhA</b>	42-20 inches	0.5-5.0 feet	2w	0.28	C	Hornfels and Porcellanite
<b>LhB</b>	42-20 inches	0.5-5.0 feet	2w	0.28	B	Hornfels and Porcellanite
<b>NaB</b>	40-72 inches	No data	2e	0.28	B	Diabase
<b>NaC</b>	40-72 inches	No data	3e	0.28	B	Diabase
<b>Uc</b>			8s			

Source: United States Department of Agriculture, Natural Resources Conservation Service 1991

## VEGETATION

Vegetation in the immediate vicinity of the Cyclorama building, as mapped in the 2006 park wide vegetation classification and mapping effort (Perles et al. 2006), and the 2011 update, includes these vegetation associations: Built-up Land, Successional Old Field, Orchard, and Transportation Corridor. All of these associations are characterized by current or past human disturbance. This area also receives a large amount of visitation resulting in impacts to vegetation from heavy foot traffic.

Areas of the Built-up Land association vegetation occur to the immediate east and north of the building. This association is characterized by the presence of buildings, structures, parking lots and roads; surrounded by frequently mowed turf grass and scattered landscape trees and shrubs. The area of North Cemetery Ridge and the area north of the building contain a number of mature trees. The majority of these trees were planted by the park (1890s-1990s) to rehabilitate the spatial arrangement within Ziegler's Grove; only a very few specimen trees were planted (and many shrubs were planted) for Cyclorama landscape design purposes in the early 1960s. It is unlikely that any trees remain from the 1863 battle, but one or two trees in the area may have been planted prior to 1897 by the War Department (NPS 2004a). The trees are maintained with an understory of grasses, either frequently or infrequently mowed. No plot data is available for this association in this area, but understory species are similar to the Successional Old Field.

Successional Old Field association vegetation occurs to the immediate west and farther to the south of the Cyclorama building. This type of vegetation is characterized by open grasslands that were historically agricultural fields. These grasslands contain a diverse mix of grasses and forbs with woody species establishing intermittently. These areas are managed by the park through infrequent mowing and sometimes by herbicide treatment of woody species with a goal of maintaining open grasslands. Common species found during monitoring in these areas were meadow ryegrass (*Lolium pretense*), redtop (*Agrostis gigantea*), wavy hairgrass (*Deschampsia flexuosa*), quackgrass (*Elymus repens*), white ash (*Fraxinus Americana*), and Japanese honeysuckle, invasive weed (*Lonicera japonica*) (Perles et al. 2006). There are three historic orchards in the vicinity of the building. The orchards have fruit trees planted in rows and are frequently mowed. No rare or sensitive plant species are known or expected in this area.

## ARCHEOLOGICAL RESOURCES

Archeological sites within the study area are representative of the broad patterns of human history associated with the greater Gettysburg area. Identified resources of earliest habitation are few, but some have been found to date from the Late Archaic period (circa 3000-1800 B.C.). Recovered prehistoric resources include rhyolite and quartz flakes, projectile points, and lithic scatter. Oral tradition and early historic evidence indicated that prehistoric objects were readily found in farm fields and along stream banks within the study area in the early 19th century, particularly near springs and waterways. Two major trails used by the Iroquois intersected just west of Gettysburg and may indicate that the area was used for migratory hunting long before European settlement opened their own roads through the area. The types of archeological sites associated with historic settlement periods include resources such as building foundations, quarries, cemeteries, dump sites, mill races, circulation systems (such as lanes and roads), and field demarcations such as post holes and walls. Battle-related resources within the general area would include the sites of burials, field hospitals, entrenchments, encampments, signal stations, supply parks, and headquarters.

## **SCENIC RESOURCES**

The historic battlefield setting is a critical resource of the park. Under the management of the Gettysburg Battlefield Memorial Association, the U.S. War Department, and now the NPS, preservation of the visual landscape of the battle has been a key management objective. Positions occupied by troops of both armies during the battle were dictated by the topography of the fields, farms, and ridges. Therefore, the ability to view the historic topography and field patterns unhindered by non-historic encroachments or intrusions is critical to understanding the battle and key decisions that influenced how the battle was fought.

The Cyclorama building is on the northern end of North Cemetery Ridge. Union soldiers of the Army of the Potomac took positions along this ridge during the Battle of Gettysburg. Numerous monuments, markers, and tablets to recognize Union infantry, artillery, and cavalry units, who held positions on and near the site of the building, surround it in all directions. North Cemetery Ridge was part of the main line of the Union Army of the Potomac during the battle and was considered key terrain. Union troops were deployed on the very ground on which the building is located. The mass and height of the Cyclorama building blocks historic views in all directions and renders it impossible to understand the topography of the northern end of North Cemetery Ridge and how and why it was used by Union commanders in establishing positions along the ridge. The building also occupies part of the ground covered by Ziegler's Grove, a historic woodlot and a prominent 1863 landscape feature on North Cemetery Ridge, which Union soldiers used for cover and concealment.

The Cyclorama building's mass also dominates the Union monuments, markers, and tablets of units that fought in its vicinity, and it competes with other monuments along North Cemetery Ridge that were intended to stand out prominently: the equestrian statue of Major General George G. Meade, the U.S. Regulars Monument, and the Pennsylvania Monument. The building's mass and brilliant white color make it highly visible from such key interpretive viewpoints as Little Round Top, the Virginia Memorial, the Peach Orchard, and the Culp's Hill tower. It is particularly obtrusive and disruptive in obscuring the historic landscape when viewing North Cemetery Ridge from the positions along Seminary Ridge from which the Confederates launched their last major attack of the battle, Pickett's Charge.

## **LOCAL ROADS AND PARK ACCESS**

Visitors to the park arrive in more than 3,500 buses and 470,000 automobiles annually. There is no scheduled air or rail service to the area. There is a regular bus service that connects Gettysburg to Harrisburg. Most visitors spend time in the vicinity of the park museum and visitor center, the Cyclorama building, the National Cemetery, and other nearby sites. Many visitors then travel by automobile, tour, or charter bus via the park's automobile tour route, traveling to the Eternal Light Peace Memorial, along West Confederate Avenue to Devils Den/Little Round Top and finally to Hancock Avenue. Repeat visitors and those with a particular interest or activity generally go directly to the site of interest, as all sites within the park are individually accessible from the public roadway network.

The roads serving Gettysburg National Military Park include the following (NPS 1999):

**US Route 15.** This limited access expressway travels in a north-south direction and connects the major east-west routes that serve the park. The most important of these is I-76 (the Pennsylvania Turnpike), located approximately 35 miles north of Gettysburg. US Route 15 carries approximately 14,000 vehicles per day near the park. As it passes through the area, it interchanges with Business Route 15 (Emmitsburg Road), Pennsylvania Route 134 (PA Route 134/Taneytown Road), Pennsylvania Route 97 (PA Route 97/Baltimore Pike), Pennsylvania Route 116, and US Route 30 (York Pike).

**Emmitsburg Road (Business US Route 15).** This two-lane road travels in a north-south direction between Business US Route 15 near the Pennsylvania-Maryland border and Lincoln Square where it intersects US Route 30. As it approaches the northern boundary of the park, Business US Route 15 is lined by many visitor services, including restaurants, souvenir shops, motels, and tour companies. In the area of the park, Business US Route 15 carries approximately 5,000 vehicles per day.

**Taneytown Road (PA Route 134).** This two-lane road travels in a northwest-southeast direction and serves as an access for traffic arriving via US Route 15. It also provides the main access to the Soldiers' National Cemetery from US Route 15.

**Baltimore Pike (PA Route 97).** This two-lane road travels in a northwest-southeast direction and connects Maryland with Littlestown and Gettysburg. The roadway carries approximately 6,400 vehicles per day east of US Route 15, where it is designated as PA Route 97. Baltimore Pike is the main access to the new park museum and visitor center.

**York Pike (US Route 30).** This east-west roadway connects Gettysburg to York, Pennsylvania. It operates as a three-lane roadway, with the center lane for left turns only. As it approaches Gettysburg from the east, it carries approximately 13,800 vehicles per day. The land uses along York Pike are mostly commercial, with motels and shopping centers predominating.

**Chambersburg Pike (US Route 30).** This two- and three-lane roadway connects Gettysburg to Chambersburg and points west. It serves the Eternal Light Peace Memorial area and connects with Reynolds Avenue. In the vicinity of the western portion of the park, it is fronted by residential and agricultural uses. Throughout the park, US Route 30 follows the route of Lincoln Highway. The park has been coordinating with the Commonwealth of Pennsylvania and other agencies for projects within the route of the old Lincoln Highway. US Route 30 carries approximately 15,000 vehicles per day, west of Gettysburg.

**Hagerstown Road (PA Route 116).** This southwest to northeast roadway travels between Hagerstown, Maryland, and Gettysburg and connects the rapidly developing southwest section of Adams County to Gettysburg. It carries approximately 9,500 vehicles per day near its intersection with West Confederate Avenue.

Within the boundaries of the park is a network of avenues. Recently, more of the avenues were converted from two-way roadways to one-way roadways. This established a counter-clockwise pattern for the major avenues within the park, improved traffic flow to the interpretative and commemorative sites within the park, and increased the parking supply. Each one-way avenue is designed to operate with one travel lane

and one parking lane. The right lane is designated for parking, while moving vehicles are directed to travel on the left side of the avenue. The posted speed limit on the avenues and some state roads within the park boundary is 25 miles per hour.

Two of the most used avenues are West Confederate Avenue and Hancock Avenue. West Confederate Avenue connects PA Route 116 to Emmitsburg Road. It passes by the North Carolina Memorial, the Virginia Memorial, and along Seminary Ridge. It is primarily a one-way roadway and travels in the southbound direction. A small portion of the avenue is two-way near its intersection with PA Route 116. West Confederate Avenue, which carries approximately 2,000 vehicles per day, is the primary avenue taken to South Confederate Avenue and two of the more popular commemorative features. Little Round Top and Devil's Den are located near the north terminus of South Confederate Avenue.

Hancock Avenue extends from United States Avenue on the south to Taneytown Road on the north. It passes by the High Water Mark and the Pennsylvania Memorial and is designated one-way (northbound). Hancock Avenue carries approximately 1,600 vehicles per day.

An arrival and departure pattern for traffic to and from Gettysburg National Military Park was evaluated in 2010 (Baker 2010). As indicated in the table below, this pattern indicates that most regional traffic arrives and departs via Routes 30 and Route 15.

Table 4. Traffic Direction of Approach and Departure	
To/From the North via US Route 15	23%
To/From the South via US Route 15	22%
To/From the South via PA Route 97	5%
To/From the East via US Route 30	24%
To/From the West via US Route 30	21%

Source: Transit Service Implementation Plan 2010

Once arriving to the area, the visitors travelling along Route 15 are directed to Baltimore Pike. Visitors on Route 30 pass into the center of the Borough and then are directed to Taneytown Road.

## **GATEWAY COMMUNITIES**

The Borough of Gettysburg and surrounding townships are considered gateway communities, and the immediate area associated with the Steinwehr Business Owners is a component of that community. Steinwehr Avenue, which runs adjacent to the Cyclorama building, is home to a variety of Gettysburg merchants. Commercial businesses provide authentic period clothing, gifts and souvenirs, accommodations, dining, ghost tours, nightlife, and other attractions. These businesses are located within a short walking distance from the Cyclorama building, the Soldiers' National Cemetery, and the Gettysburg Battlefield. Visitors can park for free or use the Freedom Transit Trolley services to travel to and from the park museum and visitor center.

In January of 2010, the Steinwehr Avenue property owners funded the Gettysburg Business Improvement District through tax assessments that enable the Steinwehr Business Owners to market their businesses and community. A Board of Directors, made up of nine businesses and civic leaders, governs the

Gettysburg Business Improvement District. The organization relies on support and partnerships from the Borough of Gettysburg, Main Street Gettysburg, Adams County Economic Development Corporation, and the NPS for the success of its improvements.

## **VISITOR USE AND EXPERIENCE**

The visitor experience at the park was originated by battle veterans. They developed a system of monuments and avenues to tell the story of their involvement in the battle. During the first 30 years after the battle, veterans and their families visited the area to relive the eventful days of July 1863. With the beginnings of the federal park in 1893, and its official designation in 1895, development of a more refined visitor experience, based upon travel along avenues that marked the lines of battle, was instituted.

In the 1930s, after most battle survivors had died, visitors from a new generation that had not lived through the battle needed orientation and interpretation to understand it. Starting in the 1930s, historians and interpreters began to orient visitors to the battle and explain it. This tradition continues today with a self-guided brochure, first developed by the park in the 1940s; programs and guided walks by park rangers; battlefield tours by Licensed Battlefield Guides; commercially produced narrated tours, smart phone applications, and podcasts; field exhibits; and the park museum and visitor center.

In the 1960s, the park constructed the Cyclorama building to serve as a home for the Cyclorama painting, as well as to act as the park's main visitor contact point. In addition, most of the wing of the Cyclorama building was devoted to administrative offices. In 1971, the park bought the Rosensteel's National Museum of the Civil War, which is adjacent to the Cyclorama building, intending to tear it down and rehabilitate the land. When the plans for a new facility to be constructed northwest of Gettysburg failed to develop after numerous attempts by the NPS, the park decided to retain the Rosensteel building and modify it to serve as the park's visitor center. The park operated both the visitor center and Cyclorama building as visitor facilities until 2008.

In 2008, Gettysburg National Military Park opened a new park museum and visitor center, built in partnership with the non-profit Gettysburg Foundation. The project was a major initiative of the park's 1999 GMP. The 139,000-square foot facility includes the park visitor center, a 24,000-square foot museum, a gallery for display of the restored Cyclorama painting, artifact conservation and curatorial storage space, research facilities, office space, a museum cafe, and a bookstore.

The park's 1999 GMP also called for rehabilitation of landscapes significant to the Battle of Gettysburg and its commemoration. Battlefield rehabilitation projects started in July 2000 and have included non-historic tree removal, the planting of trees, maintaining historic woodlots, planting orchards, and building fences. In addition, the park has been purchasing and removing non-historic and non-contributing buildings from the landscape. As a result, the park has been returning areas of the Gettysburg battlefield to their 1863 and commemorative era condition and improving visitor understanding of the battle. By opening up more of the historically open fields and meadows, the park is providing improved grassland habitat for rare, threatened, and endangered Pennsylvania animals and plants. Eleven years of battlefield rehabilitation projects have enhanced the visitor experience for many and improved the opportunities to view historic landscapes, as well as grasslands, meadows, and wildlife.

According to a 2008 study conducted by the California University of Pennsylvania for the Gettysburg Convention and Visitors Bureau, 3,003,968 people visit the Gettysburg area annually. More than 63 percent of those surveyed for the 2008 study were repeat visitors. The average length of stay was reported at 1.07 days, and nearly 50 percent of visitors stayed one night or more. In 2009, revenue generated from the county's lodging tax was reported to be \$1,213,430, and amusement taxes were \$600,334 (California University of Pennsylvania's Tourism Research Center 2008, 2010).

During the 1990s, the park experienced a 10-year trend toward increased visitation primarily due to a variety of popular movies and television programs about Gettysburg and the American Civil War. After a peak in 2002, numbers started to decline to previous levels.

Summer is the time of year when the most people visit the park. Approximately 55 percent of the visitation occurs in May through August, with July being the busiest month. Large numbers of visitors also come to the park during the spring season and in the fall. Visitation is the lowest in the winter months, from December through February, with the least amount of visitation during January.

Visitation to the park can be generally divided into three distinct visitor markets:

- local residents who make regular use of the park and who live in or near Adams County
- regional residents who take day trips to the park and who live within 100 miles of Gettysburg, but outside of Adams County
- non-resident tourists who either stay overnight or visit as a part of longer trips and who live outside the 100-mile radius of Gettysburg

These visitors come to the park to participate in a wide variety of activities and programs. Park ranger guided walks and programs, battlefield tours with Licensed Battlefield Guides, leadership seminars, military staff rides, education programs for school groups, biking, hiking, youth group camping, and visiting to "pay respect" at both the Soldiers' National Cemetery and numerous monuments and memorials throughout the park are some of the variety of uses of the park by visitors.

Numerous special events are held at the park annually, including the Battle Anniversary Programs, the Memorial Day Ceremony in the Soldiers' National Cemetery, the Dedication Day Ceremony on November 19 (the anniversary of the Gettysburg Address), and Remembrance Day activities on the weekend closest to November 19 each year.

## **PARK OPERATIONS AND PARK FACILITIES**

Park operations at the study area include grounds maintenance, building maintenance, general custodial work, monument preservation work, historic structure work, and security. Grounds maintenance employees take care of fine mowing, avenue mowing, and field mowing requirements, shrub and tree maintenance, fence repairs, leaf removal in the fall, and snow removal on sidewalks and parking lots in the winter.

Currently there are no building maintenance workers or custodial maintenance workers assigned to the study area due to the building being mothballed. Cyclic monument repairs and cyclic building repairs are performed as scheduled throughout the calendar year, but these activities are not carried out at the



Cyclorama building, as they are preservation efforts directed at historic structures. Major preservation efforts are competitively funded through regional fund programs, and these projects can be very infrequent due to the competition for preservation dollars. Park rangers and Park Watch volunteers perform site security on the Cyclorama building and the adjacent cultural landscape. The park also uses volunteers for grounds maintenance throughout the cultural landscape.

Utilities at the study area include municipal water, municipal sewer, electric and phone lines, and underground oil storage tanks. All utilities running to the Cyclorama building have been disconnected, except for electricity. Gettysburg Municipal Authority is responsible for the existing water and sewer services once they connect to the utility mains on Steinwehr Avenue. Water service to the Cyclorama building was provided by a government owned 4-inch asbestos concrete pipe on the west side of the building. Water also is available in a municipally owned 12-inch ductile iron pipe in the existing Cyclorama building parking lot and along the Taneytown Road corridor to a point where the water main turns into the new visitor center complex. Sanitary sewer service to the Cyclorama building was provided by a government-owned reinforced concrete pipe on the west side of the building, which leads to Steinwehr Avenue. Sanitary sewer also is available along the Taneytown Road corridor by a municipally-owned 6-inch forced pressure main. Electricity is provided to the Cyclorama building by Met-Ed and telephone service was provided by Century Link. These utilities run parallel to Taneytown Road, and both are fed underground from Taneytown Road to the Cyclorama building.

Currently, the Cyclorama building stands vacant. After the new park museum and visitor center building was constructed (in 2008), park staff with offices in the Cyclorama building moved their offices to the new visitor center facility. The Cyclorama building still has some of its original structural amenities from the 1960s. The heating and air conditioning systems, insulation, windows, and other elements are outdated and not energy efficient. In 2011, energy costs for electricity, fuel oil, and natural gas to maintain the building totaled \$139,900 and the estimated carbon emissions for the building was 187.86 metric tons.

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# 4

## ENVIRONMENTAL CONSEQUENCES

This “Environmental Consequences” chapter analyzes both beneficial and adverse impacts that would result from implementing any of the alternatives considered in this EA. This chapter also includes methods used to analyze direct, indirect, and cumulative impacts. A summary of the environmental consequences for each alternative is provided in table 2, which can be found in “Chapter 2: Alternatives.” The resource topics presented in this chapter and the organization of the topics correspond to the resource discussions contained in “Chapter 3: Affected Environment.”

### GENERAL METHODOLOGY FOR ANALYZING IMPACTS

In accordance with the CEQ regulations, direct, indirect, and cumulative impacts are described (40 CFR 1502.16) and the impacts are assessed in terms of context and intensity (40 CFR 1508.27). Where appropriate, mitigating measures for adverse impacts are also described and incorporated into the evaluation of impacts. The specific methods used to assess impacts for each resource may vary; therefore, these methodologies are described under each impact topic.

### GEOGRAPHIC AREA EVALUATED FOR IMPACTS

The geographic study area is generally defined as an area of approximately 12.4 acres surrounding and adjacent to the existing Cyclorama building (figure 1). The resources within the move corridors (the fingerlike projections on the western side of the study area) are only analyzed under alternative C.

### TYPE OF IMPACT

Impacts are discussed by type, as follows (the terms “impact” and “effect” are used interchangeably throughout this document):

- Direct:** Impacts that would occur as a result of the proposed action at the same time and place of implementation (40 CFR 1508.8).
- Indirect:** Impacts that would occur as a result of the proposed action but later in time or farther in distance from the action (40 CFR 1508.8).
- Adverse:** An impact that causes an unfavorable result to the resource when compared to the existing conditions.

**Beneficial:** An impact that would result in a positive change to the resource when compared to the existing conditions.

## CUMULATIVE IMPACT ANALYSIS METHODOLOGY

Cumulative impacts are defined as “the impact on the environment which results from the incremental impact of the action when added to other past, present, or reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such other actions” (40 CFR 1508.7). As stated in the CEQ handbook, *Considering Cumulative Effects under the National Environmental Policy Act* (CEQ 1997), cumulative impacts need to be analyzed in terms of the specific resource, ecosystem, and human community being affected and should focus on impacts that are truly meaningful. Cumulative impacts are considered for all alternatives, including alternative A, the no-action alternative.

Cumulative impacts were determined for each affected resource by combining the impacts of the alternative being analyzed and other past, present, and reasonably foreseeable actions that would also result in beneficial or adverse impacts. Because some of these actions are in the early planning stages, the evaluation of the cumulative impact is based on a general description of the projects. These actions were identified through the internal and external project scoping processes.

### Past, Present, and Reasonably Foreseeable Actions

**Construction of the New Park Museum and Visitor Center.** In 2008, the NPS completed construction of a new park museum and visitor center and installed the restored Cyclorama painting in the new facility. In April of 2008, park staff moved existing administration offices out of the Cyclorama building and into the new park museum and visitor center. The Cyclorama building has been vacant since that time. Construction and operation of these facilities impacted local roads and park access, gateway communities, visitor use and experience, and park operations and park facilities.

**Demolition of the Old Visitor Center Building and Restoration of Historic Landscape Features.** In 2009, as part of the implementation of the GMP and rehabilitation of the North Cemetery Ridge to its historic 1863 and commemorative appearance, the NPS demolished the old visitor center building, which served as the primary visitor center for the park for 35 years. Demolition of the old visitor center building and restoration of the historic landscape features resulted in impacts on cultural landscapes, scenic resources, visitor use and experience, and park operations and park facilities.

**Removal of the Parking Lot Formerly Associated with the Old Visitor Center Building.** As identified in the 1999 GMP, the parking lot formerly associated with the old visitor center building would be removed and the cultural landscape rehabilitated to better reflect the 1863 battle and commemoration period conditions. Implementing this action would potentially impact cultural landscapes, scenic resources, visitor use and experience, and park operations and park facilities.

**Rehabilitation of Cultural Landscapes and Historic Structures.** As part of the 1999 GMP ongoing efforts to rehabilitate the park’s landscape to better reflect the 1863 battle and commemoration conditions, the NPS has undertaken rehabilitation of battle-era residences. Additionally, cultural landscape features such as fences, orchards, circulation patterns, and vegetative cover have also been restored to reflect the

1863 battle. These improvements have had impacts on cultural landscapes, historic structures, scenic resources, and visitor use and experience.

**Ongoing Removal of Non-contributing Residential and Commercial Development.** As part of the efforts implementing the park's GMP direction to rehabilitate the park's landscape to better reflect the 1863 battle and commemoration conditions, the NPS has removed several non-contributing residential and commercial developments from the historic areas of the park. Implementing these actions has resulted in impacts on cultural landscapes, scenic resources, visitor use and experience, and park operations and park facilities.

**Development of US Route 30 East and Various Commercial Developments.** In the vicinity of the park, commercial developments and modern buildings have populated US Route 30 East. Shopping malls, outlets, fast food, and other businesses have developed in the park's surrounding area. These developments have impacted archeological resources, scenic resources, gateway communities, and visitor use and experience.

In defining the contribution of each alternative to cumulative impacts, the following terminology is used:

- |                       |   |
|-----------------------|---|
| <b>Imperceptible:</b> | The incremental effect contributed by the alternative to the overall cumulative impact is such a small increment that it is impossible or extremely difficult to discern. |
| <b>Noticeable:</b>    | The incremental effect contributed by the alternative, while evident and observable, is still relatively small in proportion to the overall cumulative impact.            |
| <b>Appreciable:</b>   | The incremental effect contributed by the alternative constitutes a large portion of the overall cumulative impact.   |

## **ASSESSING IMPACTS USING CEQ CRITERIA**

The impacts of the alternatives are assessed using the CEQ definition of "significantly" (1508.27), which requires consideration of both context and intensity:

- (a) **Context** – This means that the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole. Both short and long-term effects are relevant.
- (b) **Intensity** – This refers to the severity of impact. Responsible officials must bear in mind that more than one agency may make decisions about partial aspects of a major action. The following should be considered in evaluating intensity:

- (1) Impacts that may be both beneficial and adverse. A significant effect may exist even if the federal agency believes that on balance the effect would be beneficial.
- (2) The degree to which the proposed action affects public health or safety.
- (3) Unique characteristics of the geographic area such as proximity to historic or cultural resources, parklands, prime farmlands, wetland, wild and scenic rivers, or ecologically critical areas.
- (4) The degree to which the effects on the quality of the human environment are likely to be highly controversial.
- (5) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.
- (6) The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.
- (7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.
- (8) The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.
- (9) The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.
- (10) Whether the action threatens a violation of federal, state, or local law or requirements imposed for the protection of the environment.

For each impact topic analyzed, an assessment of the potential significance of the impacts according to context and intensity is provided in the “Conclusion” section that follows the discussion of the impacts under each alternative. Resource-specific context is presented in the Methodologies section under each resource topic and applies across all alternatives. Intensity of the impacts is presented using the relevant factors from the list in (b) above. Intensity factors that do not apply to a given resource topic and/or alternative are not discussed.

## **HISTORIC STRUCTURES**

### **METHODOLOGY**

Potential impacts to historic structures are evaluated based on changes to character-defining features of the resources. This approach is derived from both the Secretary of the Interior's Standards for Rehabilitation of Historic Buildings as well as the regulations of the ACHP implementing the provisions of Section 106 of the National Historic Preservation Act. The resource-specific context for the evaluation of impacts on historic structures includes:

- preservation and protection of historic structures associated with the battle of 1863 and the commemorative period landscape are key to the park's mission and enabling legislation.
- the Cyclorama building is eligible for listing on the National Register and is associated with a national movement (Mission 66).
- architecture groups are sensitive to the Cyclorama building as a representative architecture type of Richard Neutra; however, examples of Neutra's work can be found in other parks and locations throughout the U.S.
- the purpose of the monuments is to mark the specific locations of the troops that fought in the battle.

### **ALTERNATIVE A: NO-ACTION: MOTHBALLING OF CYCLORAMA BUILDING**

#### **Impacts**

Under alternative A, the Cyclorama building would be mothballed. The goal of mothballing a building is to preserve the building and its National Register character-defining features for future restoration or rehabilitation. However, the building also has persistent maintenance problems. Over the years, leaky roofs and poor humidity and temperature controls have caused damage in some areas, particularly in the rotunda gallery. The length of time the building would be mothballed is undetermined. Until a long-term future use is determined, the building would be unoccupied and closed to the public.

The building would remain accessible to maintenance personnel for periodic inspection, however, the maintenance of the building would be of a lower priority than if it were occupied or contributed to the significance of the park. This action would result in some expenditure of maintenance funds for routine repairs, although with no visitor use of the building, the level of maintenance would be reduced. The park would update and repair the fire protection and security alarms for the building. Because the building would still be located in a highly visible area of the park, park rangers would continue to patrol the area, which may minimize impacts from vandalism. Cosmetic repairs would not take place, and the building would continue to have a worn appearance that would detract from the visitor experience of the battlefield and of the building. Over time, elements of the building would likely deteriorate in spite of mothballing.

Water run-off from the Cyclorama building and its hardened surfaces would continue to impact Meade's Headquarters and the Leister Barn, causing damage to external features and foundations. In addition, the Cyclorama building would continue to overshadow the Brian buildings, a modern intrusion on the historic setting of these structures.

Several monuments that commemorate the 1863 battle would be moved and relocated to their original historic setting, resulting in a beneficial impact. The following monuments would be relocated:

- the 12th Massachusetts Infantry Position
- the 1st Massachusetts Sharpshooters Position
- the 90th Pennsylvania Infantry Monument
- the 88th Pennsylvania Infantry Position

As described in chapter 2, these historic monuments would be protected during removal and relocation.

The monument and cannons of the Battery F, 5th U.S. Artillery would be adversely impacted, as they would remain in their nonhistoric location and would not be able to be relocated due to the continued presence of the Cyclorama building.

### **Cumulative Impacts**

Other past, present, and reasonably foreseeable actions that have had or would have impacts on historic structures include the rehabilitation of battle-era cultural landscapes and historic structures. Efforts to rehabilitate the battle-era houses to better reflect the Gettysburg battle period have enhanced and preserved historic structures in the park vicinity. These actions, along with other efforts to restore historic features of the battlefield contributed or would contribute to beneficial impacts on historic structures. The impact of alternative A, in conjunction with the impacts of these other actions, would result in a beneficial cumulative impact on historic structures. Alternative A would contribute noticeable adverse and beneficial increments to the overall cumulative impact.

### **Conclusion**

Overall, alternative A would result in continued beneficial and adverse impacts on historic structures. The primary adverse impact would result from the building being maintained at a lower standard (stabilization). The building would continue to degrade and have a worn appearance. However, the Cyclorama building would be retained and stabilized as a historic structure (a beneficial impact). The Cyclorama building was determined eligible for listing by the Keeper of the National Register on September 24, 1998. The building exhibits a high level of historic integrity with only a few minor alterations and nearly all its original features and materials still intact. Although the building is a representative example of Richard Neutra's work and the Mission 66 period, it is not considered a unique example of Neutra's work. In addition, adverse impacts of the Cyclorama building and its hardened surfaces on Meade's Headquarters, the Leister Barn, and the Brian buildings would continue. Impacts on these structures would likely not result in a loss of integrity or their removal from listing or eligibility for listing on the National Register. Lastly, the monument and cannons of the Battery F, 5th U.S. Artillery would remain in their nonhistoric location and would not be able to be relocated due to the continued presence of the Cyclorama building. In their current location, the monument and cannons serve only as a commemorative device because they would not mark the group's place in the line of battle or meet the purpose of the park. A beneficial impact would result from the relocation of four monuments to their original historic setting commemorating the 1863 battle. Alternative A would contribute noticeable adverse and beneficial impacts to the overall beneficial cumulative impact on historic structures. The adverse impacts of alternative A on historic structures would not be significant because the adverse



impacts on the structures related to the battle of 1863 and the commemorative period would be minimal and the Cyclorama building, which is eligible for listing on the National Register, would be retained.

## **ALTERNATIVE B: DEMOLITION OF THE CYCLORAMA BUILDING (NPS PREFERRED)**

### **Impacts**

Under alternative B, the park proposes to demolish the Cyclorama building and rehabilitate the immediate area to reflect the 1863 battle conditions and its subsequent commemoration. Demolition of the Cyclorama building would represent a permanent loss of a National Register-eligible historic structure. However, as noted in the SHPO's letter to the park on September 10, 2010, "demolition of the Cyclorama building in order to return the area to its appearance at the time of the battle is the best alternative." Alternative B would be consistent with the 1999 GMP's goal of rehabilitation of the battlefield landscape, and in the SHPO's opinion, it is more important to "focus on the battle and the landscape instead of the 1962 Cyclorama building, which as time has demonstrated, is incapable of protecting and preserving the Cyclorama painting itself." Therefore, although demolition of the building would result in an adverse impact to an historic structure, rehabilitation of the landscape would be beneficial to the park's cultural resources. Recordation of the structure and other mitigation measures as specified in the existing MOA between the SHPO, ACHP, and NPS has been completed.

A historic stone wall located to the east of the Cyclorama building office wing would be impacted by the demolition of the building. The wall would be removed, if necessary, and reconstructed in-kind once demolition is complete. Exterior features and foundations at Meade's Headquarters and the Leister Barn would no longer receive an increase in water run-off from the presence of the Cyclorama building, resulting in a beneficial impact to historic structures. In addition, the presence of the Cyclorama building would no longer intrude on the historic setting for the Brian buildings.

The beneficial impact of relocating the monuments to their original, historic locations would be the same as described under alternative A, except for the additional relocation of the Battery F, 5th U.S. Artillery monument to its historic location.

### **Cumulative Impacts**

Collectively, the cumulative impacts described above under alternative A have contributed or would contribute to beneficial impacts on historic structures. The impact from demolition of the Cyclorama building under alternative B would result in an adverse impact contribution to the cumulative impacts on historic structures. However, alternative B also would contribute beneficially from the removal of water damage to the Meade's Headquarters and the Leister Barn, as well as the improvements to the historic setting of the Brian buildings and the commemorative monuments.

### **Conclusion**

Overall, alternative B would result in an adverse impact to the Cyclorama building and beneficial impacts to other historic structures. The Cyclorama building was determined eligible for listing by the Keeper of the National Register on September 24, 1998. The building exhibits a high level of historic integrity with only a few minor alterations and nearly all its original features and materials still intact. Therefore, its demolition would be an adverse impact: a permanent loss of a National Register-eligible historic

structure. Although the building is a representative example of Richard Neutra's work and the Mission 66 period, it is not considered a unique representation. Other existing representative examples of Neutra's work and the Mission 66 period include the Petrified Forest National Park visitor center and the Dinosaur National Monument visitor center. Recordation of the structure and other mitigation measures as specified in the existing MOA between the SHPO, ACHP, and NPS has been completed. This baseline data would allow for conservation of some building elements and features. After demolition of the Cyclorama building and implementation of site restoration, water infiltration and runoff impacts to Meade's Headquarters and the Leister barn could be expected to decrease, resulting in a preservation of their external features and settings. The historic settings of the Brian buildings and historic commemorative monuments would be improved as well. Alternative B would contribute noticeable adverse and beneficial impacts to the overall beneficial cumulative impact that results from the rehabilitation of battle-era houses. Overall, the impacts of alternative B on historic structures would be beneficial and the loss of the Cyclorama building would not be significant because the Cyclorama building is not a unique representation of Neutra's work, as examples can be found in other parks and locations throughout the U.S.

### **ALTERNATIVE C: RELOCATION OF THE CYCLORAMA BUILDING OUTSIDE THE PARK BY A NON-NPS ENTITY**

#### **Impacts**

Under alternative C, the park proposes that a non-NPS entity move the Cyclorama building to an undetermined site outside of the park, and the NPS would rehabilitate the immediate area to reflect the setting present during the battle as part of the rehabilitation of Cemetery Ridge. The building is bound on the east by PA Route 134 and on the west by Business US Route 15. Both of these routes are two-lane roads with varying topography and embankments of several feet high on one or both sides. In addition, the park owns several Civil War era historic structures that are immediately adjacent to the road and cannot be moved. Therefore, to move the building to any location outside of the park would require the building to be moved in smaller pieces. While the office wing could be moved if sectioned into two or three pieces, the drum and apron would need to be cut into several sections or even deconstructed and reassembled or replicated. Some of the National Register character-defining features could be moved to the new site independently and reinstalled, and the building would undergo exterior rehabilitation and interior renovation.

Alternative C could involve the complete rehabilitation of the exterior, new interior improvements, or it could be something less than full rehabilitation. The alternative does not guarantee that the building would be relocated in the same north to south orientation as its original location or that the new relocation would preserve some of the building's character-defining features such as the entrances at different levels, the configuration of the ramp and rooftop viewing area, and its general environmental orientations (the window louvers would face the same direction). In the best case scenario, the building would be moved and rehabilitated, but the relocation of the building from its original setting would have a much larger adverse impact. In addition, the visitor's circulation path within the building, typical of popular NPS Mission 66 visitor centers, that culminates at the rooftop viewing area would no longer look over the field of Pickett's Charge. The building also could experience unforeseen damage during the move that may be difficult to rehabilitate to the original condition. For example, the thin ribbed concrete skin of the drum could show unsightly cracks and joints, if it is sectioned for transport, or it may even need to be completely duplicated in order to attain the clean minimalist aesthetic so important to the original design.

A historic stone wall located to the east of the Cyclorama building office wing would be impacted by the demolition of the building. The wall would be removed, if necessary, and reconstructed in-kind once demolition is complete. Depending on the move corridor selected, impacts on historic structures within the corridor would vary.

**Move Corridor 1.** The commemorative-era resources within the corridor (see figure 5) would be removed from the landscape, stored safely, and placed back on the battlefield in their commemorative-era locations. This includes:

- 12th Massachusetts Infantry Position Marker
- 88th Pennsylvania Volunteers Monument
- 1st Massachusetts Sharpshooters Marker
- 90th Pennsylvania Volunteers Right Flank Marker
- Butler's Battery G, 2nd U.S. Regulars Monument
- Battery F, 5th U.S. Artillery Monument

**Move Corridor 2.** Similar to move corridor 1, the commemorative-era resources within move corridor 2 (see figure 5) would be removed from the landscape, stored safely, and placed back on the battlefield in their commemorative-era locations. This includes:

- Woolson GAR Memorial and SUV Tablet
- 9th Massachusetts Light Artillery Battery monument and cannons
- 108th NY Infantry
- Battery G, 2nd U.S. Artillery monument and canons

The Battery F, 5th U.S. Artillery monument and cannons would be relocated to its commemorative-era location, as it is currently located in a nonhistoric setting.

Overall, there would be a beneficial impact to these resources once they are returned to their commemorative-era locations. There is a potential for adverse impact due to unexpected or unavoidable damage during this temporary removal process.

Meade's Headquarters and the Leister Barn would no longer receive an increase in water drainage from the presence of the Cyclorama building. In addition, the Brian buildings would no longer be overshadowed by the presence of the Cyclorama building. The beneficial impact of relocating the monuments to their original, historic locations would be the same as described under alternative B.

### **Cumulative Impacts**

Collectively, the cumulative impacts described above under alternative A have contributed or would contribute to beneficial impacts on historic structures. The impact from removal of the Cyclorama building under alternative C and the need to move additional historic monuments and markers would result in an adverse impact contribution to the cumulative impacts on historic structures. However, alternative C also would contribute beneficially from the removal of water damage to the Meade's Headquarters and the Leister Barn, as well as the improvements to the historic setting of the Brian buildings and the commemorative monuments.

## **Conclusion**

Overall, this alternative would result in both adverse and beneficial impacts on the Cyclorama building and other historic structures. The Cyclorama building was determined eligible for listing by the Keeper of the National Register on September 24, 1998. The building exhibits a high level of historic integrity with only a few minor alterations and nearly all its original features and materials still intact. Therefore, its deconstruction and removal would be an adverse impact. Relocation is an alteration of one of the building's major character-defining features, its connection to the battlefield, and one which diminishes its historical integrity and jeopardizes its eligibility for the National Register of Historic Places. Although the building is a representative example of Richard Neutra's work and the Mission 66 period, it is not considered a unique representation. Recordation of the structure and other mitigation measures as specified in the existing MOA between the SHPO, ACHP, and NPS documented features of the structure prior to relocation and would allow for conservation of some building elements and features. After removal of the Cyclorama building and implementation of site restoration, water infiltration and runoff impacts to Meade's Headquarters and the Leister barn could be expected to decrease, resulting in a preservation of their external features and settings. The historic settings of the Brian buildings and historic commemorative monuments would be improved as well. Alternative C would contribute noticeable adverse and beneficial impacts to the overall beneficial cumulative impact that results from the rehabilitation of battle-era houses. Overall, the impacts of alternative C on historic structures would be beneficial and the relocation of the Cyclorama building would not be significant because the Cyclorama building is not a unique representation of Neutra's work, as examples can be found in other parks and locations throughout the U.S.

## **CULTURAL LANDSCAPES**

### **METHODOLOGY**

According to the NPS Director's Order 28: Cultural Resource Management (Director's Order 28) (NPS 2002), a cultural landscape is:

...a reflection of human adaptation and use of natural resources and is often expressed in the way land is organized and divided, patterns of settlement, land use, systems of circulation, and the types of structures that are built. The character of a cultural landscape is defined both by physical materials, such as roads, buildings, walls, and vegetation, and by use reflecting cultural values and traditions.

In addition, Congress identified topographic significance as a key element in the preservation of the battlefield. In the 1895 act setting aside the area, Congress stated that among the purposes for the area to be set aside was "to preserve the important topographical features of the battlefield." For the purposes of this analysis landforms include site elevation, slope orientation, stratification, rock exposure, soil type, and vegetation. This preservation of topographical features is a key element of preserving the cultural landscape associated with the battle.

Potential impacts on cultural landscapes, topography, landforms, and vegetation are evaluated in terms of past, present and future change resulting from implementation of the alternatives. The cultural landscapes evaluation addresses anticipated changes to land use, vegetation patterns, circulation systems, locations of

structures, topographic features and relief, site elevation, slope orientation, rock exposure, and modification of soil types.

The resource-specific context for assessing impacts to cultural landscapes and topographic and landform features includes:

- the ability of the landscape elements to fully represent the 1863 battle at Gettysburg, the Cemetery Ridge defenses, and the commemorative-era elements in the Cemetery Ridge battle area.

## **ALTERNATIVE A: NO-ACTION: MOTHBALLING OF CYCLORAMA BUILDING**

### **Impacts**

Under alternative A, the Cyclorama building would remain in its current location and configuration. Prior to the construction of the Cyclorama building, the site contained several features that affected the outcome of the 1863 battle. These features included topographic relief and cover used during the battle. Construction of the Cyclorama building and its associated parking, roads, and walkways resulted in a flattening of the topography and an alteration of the remaining battlefield landscape. In addition, features and memorials associated with the commemorative period were also moved or altered. Under this alternative, the Cyclorama building would continue to pose a modern intrusion on the cultural landscape of the 1863 scene. Within the current footprint of the building, no attempt would be made to rehabilitate and interpret those battle-related landscape features and commemorative devices that have been displaced by the building, particularly the stone walls and fence lines and the open character of the fields and displaced monuments. The topography which was flattened to accommodate the building cannot be materially changed in order to rehabilitate North Cemetery Ridge.

Repairs to the Cyclorama building would be limited to the area immediately surrounding the building and would not result in removal or additional damage to surviving cultural landscape features dating from the battle period or the commemorative period.

Vegetation in the vicinity of the Cyclorama building consists primarily of frequently mowed turf grass and scattered landscape trees and shrubs on the immediate east and north. Open grasslands that contain a mix of grasses and forbs with intermittent woody species are located to the immediate west and south of the building. Impacts to these species resulting from construction and repair work are expected to be minimal because the majority of the work would be conducted inside or in very close proximity to the building.

To the extent possible, site specific restoration of cultural landscape elements reflecting the 1863 battle and its significant commemoration would continue to be implemented in the area surrounding the Cyclorama. These actions would require removal of walkways to and surrounding the Cyclorama building as well as removal of ornamental plantings and screening installed during the 1960s and 1980s.

Walkways installed as part of the Cyclorama would be removed, and the existing Cyclorama building parking lot would be reconfigured so that portions of Ziegler's Ravine could be restored and would continue to provide parking for the Soldiers' National Cemetery. Removal of impervious surfaces

(approximately 70,241 square feet) and replanting with vegetation as specified in the CLR would take place. Vegetation restoration would include removal of existing vegetation in areas where vegetation did not occur at the time of the battle (except at the parking lot). Revegetation efforts would use tree and shrub species native to the region.

### **Cumulative Impacts**

Other past, present, and reasonably foreseeable actions that have had or would have impacts on cultural landscapes include demolition of the old visitor center building and removal of its parking lot, rehabilitation of battle-era cultural landscapes and historic structures, and ongoing removal of non-contributing residential and commercial development. Collectively, these cumulative actions have contributed or would contribute to beneficial impacts on cultural landscapes. By maintaining the Cyclorama building in its current location, alternative A would contribute an adverse impact increment to the overall cumulative impacts on cultural landscapes. Beneficial effects resulting from the restoration of landscape elements at Cemetery Ridge and Ziegler's Ravine would somewhat offset the adverse cultural landscape impacts associated with the original construction of the Cyclorama building.

### **Conclusion**

Alternative A would have both beneficial and adverse impacts on cultural landscapes. The Cyclorama building, its adjacent walkways and parking lots, and ground disturbance associated with its construction have resulted in alteration of the cultural landscape of the 1863 battle and the commemorative-era features. Maintaining the structure would continue to impede on the understanding and interpretation of the nationally significant and National Register listed cultural landscapes related to the Battle of Gettysburg and its commemoration. These cultural landscapes are unique areas that greatly contribute to the purpose for which the park was established. Allowing the Cyclorama building to remain further impedes the accurate representation of historic land use patterns, vegetation, and topographic features key to the understanding of the 1863 battle and its commemoration. Removal of walkways, redesign of the existing parking lot, and restoration of Ziegler's Ravine would result in a decrease in impermeable surfaces and replacement of historic features. To the extent that native vegetation is restored and other landscape features returned, a beneficial impact would result to the cultural landscape. Alternative A would contribute an adverse increment to the overall beneficial cumulative impact. In spite of the adverse impacts on cultural landscapes under alternative A, the impacts would not be significant due to the cultural landscape rehabilitation efforts around the building.

## **ALTERNATIVE B: DEMOLITION OF THE CYCLORAMA BUILDING (NPS PREFERRED)**

### **Impacts**

Prior to the construction of the Cyclorama building, the site contained several features that affected the outcome of the battle. These features included topographic relief and cover used during the battle. Construction of the Cyclorama building and its associated parking, roads, and walkways resulted in a flattening of the topography and an alteration of surviving battlefield landscape features. In addition, features and memorials associated with the commemorative period were also moved or altered. Under this alternative the approved GMP would be implemented at the site. Actions under this alternative would include: demolition of the Cyclorama building and its associated pedestrian access; removal of the western half of the existing Cyclorama parking lot and restoration of the approximate historic grades of Ziegler's Ravine; regrading adjacent roadways to more closely reflect historic landscape relief; removal

of most existing vegetation in areas where vegetation did not occur at the time of the battle; and use of species native to the region for all new tree, shrub, and other vegetation restoration.

Under alternative B, topography would be altered as a result of the demolition of the Cyclorama building and rehabilitation of the landscape in the project area. The building would be demolished and the above-grade portions of the Cyclorama building foundation would be removed. Demolition of the building, its foundation, and use of heavy equipment in the area would result in temporary intrusions on the setting of the cultural landscape, as well as geologic/landform features. Some debris from the building demolition would be used as backfill, and the building footprint would be recontoured to match the topographic conditions of the 1863 battle. Debris not used as fill would be loaded into dumpsters or trucks and removed.

Under alternative B, Cyclorama demolition work would occur across an area that extends 3.9 acres beyond the Cyclorama building footprint. The activities associated with staging, transportation of supplies and materials, and demolition of the building as part of this alternative would create impacts to this cultural landscape and its features during construction and initial restoration of the site. Any area within the site that is impacted by demolition traffic and excavation would be topped with clean fill topsoil, recontoured, and graded after demolition is complete. This would result in a beneficial impact to topography through restoration of the cultural landscape within the project area. Temporary access routes necessary to move equipment to the building site would be mitigated through use of matting or other materials to minimize surface topsoil compaction, particularly in the 1863 fields associated with the David Ziegler and Peter Frey farms. Equipment operation also has the potential to damage or dislocate features within the cultural landscape, particularly the monuments and some mature trees within historic Ziegler's Grove. Monuments or other landscape features such as rock outcrops that may be within the area of equipment operation would be fenced or otherwise protected. Potential impacts to mature trees intended for retention would be mitigated through fencing of the areas in order to prevent equipment entry or inadvertent injury to tree bark, or damage to tree roots or systems. In addition, the proximity of two historic stone walls immediately adjacent to the building footprint, the Abraham Brian Farm Orchard East Boundary Stone Wall and Breastwork and the Peter Frey Farm Field No. 2 North Boundary Rider Fence, would require documentation of the walls, temporary removal of all or portions of the walls, and eventual restoration of the portions that were removed. These activities would result in temporary adverse impacts to the cultural landscape during demolition activities but beneficial impacts once restoration actions were completed.

### **Cumulative Impacts**

Other past, present, and reasonably foreseeable actions that have had or would have impacts on cultural landscapes are described under alternative A. Collectively, these actions have contributed or would contribute to long-term, beneficial impacts on the cultural landscape. Alternative B would contribute a noticeable, adverse increment during demolition and a noticeable beneficial increment to the overall cumulative impacts on cultural landscapes.

### **Conclusion**

Under alternative B, demolition of the Cyclorama building, sidewalk areas, and portions of the existing Cyclorama building parking lot would have a beneficial impact on rehabilitating the unique cultural landscapes within the study area. Beneficial impacts to the cultural landscape would result from

restoration of topographic features in areas previously disturbed by construction of the Cyclorama building, sidewalks, and parking. Return of native vegetation to the site would constitute a beneficial impact as would removal of current impermeable surfaces. Implementing alternative B would result in the rehabilitation of the nationally significant 1863 battle and commemorative-era landscapes that are key to the purpose and significance of Gettysburg. Alternative B would contribute a noticeable, adverse increment during demolition of the building and a noticeable beneficial increment to the overall cumulative impacts on cultural landscapes. The adverse impacts observed during construction would not be significant, as they would be temporary.

## **ALTERNATIVE C: RELOCATION OF THE CYCLORAMA BUILDING OUTSIDE THE PARK BY A NON-NPS ENTITY**

### **Impacts**

Under alternative C, the Cyclorama building would be removed and relocated to an area outside of the park and historic district. After the building was removed the site would be restored to the extent possible to the 1863 battle period and commemorative era similar to those restoration actions described for alternative B. Therefore, the beneficial impacts of alternative C on the cultural landscape would be the same as those described under alternative B.

Actions required for the relocation of the Cyclorama building would occur across a work area that extends 7.4 acres beyond the Cyclorama footprint if Move Corridor 1 is used or across a work area that extends 6.1 acres beyond the Cyclorama footprint if Move Corridor 2 is used. The 1863 battlefield and commemoration landscape on the grounds of North Cemetery Ridge at the site of the Cyclorama building contains several features that affected the outcome of the battle. The activities associated with staging, transportation of supplies and materials, and deconstruction prior to the movement of the building would impact the cultural landscape. Temporary access or other grading would disrupt the topography of North Cemetery Ridge, particularly in the 1863 fields associated with the David Ziegler and Peter Frey farms, and have the potential to damage or dislocate features within the cultural landscape, including the monuments and some mature trees within Ziegler's Grove and adjacent 1863-era boulder outcroppings. In addition, the proximity of two historic stone walls immediately adjacent to the building footprint, the Abraham Brian Farm Orchard East Boundary Stone Wall and Breastwork and the Peter Frey Farm Field No. 2 North Boundary Rider Fence, would probably require partial or full removal and reconstruction in order to facilitate building movement as part of eventual site restoration. These actions would result in adverse impacts to the cultural landscape during construction.

Depending upon the move corridor selected, transport of the structure to established roadways would result in potential impacts to 86 features (cannons, monuments, trees, and utility points) in move corridor 1 or 43 features in move corridor 2 (see figure 5).

### **Cumulative Impacts**

Other past, present, and reasonably foreseeable actions that have had or would have impacts on cultural landscapes are identified above. The demolition of the old visitor center building, the rehabilitation of battle-era houses, and ongoing removal of non-contributing residential development have all been contributing to the park's goal of achieving the objectives of the 1999 GMP/EIS to rehabilitate the park



landscape to reflect 1863 battle and commemoration conditions. Collectively, these cumulative actions have contributed or would contribute to long-term, beneficial impacts on cultural landscapes. Alternative C would contribute a noticeable adverse increment during construction and a beneficial contribution to cumulative impacts to cultural landscapes.

## **Conclusion**

Under alternative C impacts resulting from the removal activities would have an adverse impact on the cultural landscape. These actions would include ground disturbance and operation of equipment in the building vicinity during construction, preparation of the building for relocation, and transport of the building. After the building was relocated actions to rehabilitate features of the 1863 and commemorative cultural landscapes also would have a beneficial impact. Overall, this alternative would result in, adverse impacts to cultural landscape features and landforms during construction and movement of the structure and beneficial impacts to cultural landscapes of the 1863 battle once the structure was removed and restoration of landscape features implemented. In spite of the adverse impacts on cultural landscapes under alternative C during relocation of the structure and the potential for some landscape features to be damaged by the construction of the selected move corridor, the impacts would not be significant because the most obvious impediment to rehabilitating the cultural landscapes and topographic and landform features related to the 1863 battle at Gettysburg, the Cemetery Ridge defenses, and the commemorative-era elements in the Cemetery Ridge battle area would be removed.

## **ARCHEOLOGICAL RESOURCES**

### **METHODOLOGY**

Archeological resources are the remains of past human activity and the records documenting the analysis of such remains (NPS DO28: Cultural Resource Management Guideline). Potential impacts on archeological resources are assessed based on the amount of disturbance to an archeological resource and the degree to which the integrity remains or is otherwise lost without recordation of the remains. Resource-specific context for the evaluation of impacts on archeological resources includes:

- archeological resources have been found in the area related to the 1863 battle at Gettysburg, the Cemetery Hill defense, and the commemorative-era period.
- archeological resources at the park and in the surrounding area signify a national event (the Civil War).
- prehistoric archeological resources have been found in areas throughout Gettysburg, particularly near springs and waterways.

### **ALTERNATIVE A: NO-ACTION: MOTHBALLING OF CYCLORAMA BUILDING**

#### **Impacts**

Under alternative A, the transport and set up of materials and supplies to support the repairs of the Cyclorama building have the potential to impact archeological resources within the work area around the building. While previous construction of the Cyclorama building and adjacent walkways and parking has resulted in ground disturbance and flattening of the topography, any new ground disturbance would be

preceded by an archeological survey to identify and avoid any known archeological resources identified during earlier archeological mitigation or through historic research. Where resources could not be avoided, there could be additional impacts to archeological resources. If any unknown resources are uncovered during ground-disturbing activities, procedures to implement Section 106 of the NHPA would be instituted. The original Telford road base for Hancock Avenue is known to exist beneath the 4-5 feet of fill used when Ziegler's Ravine was recontoured to accommodate the parking lot. There is a potential for adverse impact due to unexpected or unavoidable damage during the removal of the existing fill. Impacts would be minimized through the use of mitigation measures, as identified in chapter 2. Overall, this alternative would result in the potential for adverse impacts to archeological resources during repair work.

### **Cumulative Impacts**

Other past, present, and reasonably foreseeable actions that have had or would have impacts on archeological resources include the development of US Route 30 east and various commercial developments. Future development in this corridor may result in excavation or disturbance of regional archeological resources of the Gettysburg battle-era. The impact of alternative A, in conjunction with the impacts of these other actions, would result in an adverse cumulative impact on archeological resources due to the potential for ground-disturbing activities. Alternative A would contribute a small adverse increment to the overall cumulative impact.

### **Conclusion**

Ground disturbing activities related to modifications around the building have the potential to adversely impact archeological resources. The likelihood of finding National Register-eligible archeological resources in the study area is minimal, as the area has been heavily disturbed during construction of the Cyclorama building. Therefore, the potential for a loss of National Register-eligible resources is minimal as well. In order to avoid or mitigate impacts to presently unknown resources, ground disturbing activities would be preceded by archeological surveys and clearances. Alternative A would contribute a small adverse increment to the overall adverse cumulative impact due to the potential for excavation and disturbance of archeological resources in relation to development and construction. The adverse impacts of alternative A on archeological resources would not be significant.

## **ALTERNATIVE B: DEMOLITION OF THE CYCLORAMA BUILDING (NPS PREFERRED)**

### **Impacts**

Under alternative B, the transport and set up of materials and supplies to support the deconstruction, demolition, and transportation of portions of the Cyclorama building have the potential to impact archeological resources within and adjacent to the work area around the building. Resources also are at risk in an additional two acres, where supplies and vehicles would move between the building site and the parking lot. Impacts should be minimal within the immediate vicinity of the Cyclorama building, as this area was highly disturbed as part of the excavation for the construction of the building. While previous construction of the Cyclorama building and adjacent walkways and parking resulted in ground disturbance and flattening of the topography, any new ground disturbance, implementation of staging areas, roadways, and demolition sites would be preceded by an archeological survey to identify and avoid archeological uncovered during earlier archeological mitigation or through historic research. Demolition and transport activities may also impact the sites of historic fencing and stone walls, particularly along

boundaries of the fields of Peter Frey and David Ziegler. The site of the stone wall along the western boundary of Ziegler's Farm Field No. 9 is particularly fragile because of its use as a protection from enemy fire by Union infantry and artillery. The sites of the commemorative path and observation tower are at risk to impact because of their proximity to the designated work and transportation areas. Where damage to these sites or other resources could not be avoided, there could be additional impacts to archeological resources. If any unknown resources are uncovered during ground-disturbing activities, procedures to implement Section 106 of the NHPA would be instituted. The original Telford road base for Hancock Avenue is known to exist beneath the 4-5 feet of fill used when Ziegler's Ravine was recontoured to accommodate the parking lot. There is a potential for adverse impact due to unexpected or unavoidable damage during the removal of the existing fill. Impacts would be minimized through the use of mitigation measures, as identified in chapter 2. Overall, this alternative would result in adverse impacts to archeological resources during restoration related ground disturbance.

### **Cumulative Impacts**

Cumulative impacts on archeological resources from past, present, and reasonably foreseeable projects are described under alternative A. Collectively, these cumulative actions have contributed or would contribute adverse impacts on archeological resources due to the potential for ground disturbing activities. When the impacts on archeological resources as a result of alternative B are combined with the other projects in the study area, an overall adverse cumulative impact would be expected. Alternative B would contribute a noticeable adverse increment.

### **Conclusion**

Ground disturbing activities associated with demolition of the Cyclorama building and restoration of the 1863 landscape features have the potential to result in adverse impacts to archeological resources. The likelihood of finding National Register-eligible archeological resources in the study area is minimal, as the area has been heavily disturbed during construction of the Cyclorama building. Therefore, the potential for a loss of National Register-eligible resources is minimal as well. In order to mitigate or avoid impacts to previously unknown archeological resources, ground disturbing activities would be preceded by archeological surveys and clearances. Alternative B would contribute a noticeable adverse increment to the adverse cumulative impact due to the potential for disturbance or loss of archeological resources in the area. Alternative B would not result in significant adverse impacts due to the fact that the area has already been heavily disturbed, resulting in low probability that important archeological resources exist or would be found.

## **ALTERNATIVE C: RELOCATION OF THE CYCLORAMA BUILDING OUTSIDE THE PARK BY A NON-NPS ENTITY**

### **Impacts**

Under alternative C, the transport and set up of materials and supplies to support the deconstruction and relocation of the Cyclorama building have the potential to impact archeological resources within the work area around the building, as well as within the designated move corridors if the building is moved in two pieces. Resources also are at risk in an additional two acres, where supplies and vehicles would move between the building site and the parking lot. Prior to any implementation of staging areas, roadways, and construction sites, an archeological survey would be instituted to identify and avoid any known

archeological resources identified during earlier archeological mitigation or through historic research. The original sites of historic commemorative monuments, including those of Battery F, 5th U. S. Artillery, 88th and 90th Pennsylvania Volunteers, 107th PA, 108th NY monument and left flank marker, 90th PA right flank marker, 12th MA marker and Battery G, 2nd U.S. Artillery, and Albert Woolson (GAR), as well as historic circulation features, would be particularly safeguarded to avoid adverse impacts. Deconstruction and transport activities may also impact the sites of historic fencing and stone walls, particularly along boundaries of the fields of Peter Frey and David Ziegler. The site of the stone wall along the western boundary of Ziegler's Farm Field No. 9 is particularly fragile because of its use as a protection from enemy fire by Union infantry and artillery. Where damage to these sites or other resources could not be avoided, there could be additional impacts to archeological resources. If any presently unknown resources are uncovered during ground-disturbing activities, procedures to implement Section 106 of the NHPA would be instituted. The original Telford road base for Hancock Avenue is known to exist beneath the 4-5 feet of fill used when Ziegler's Ravine was recontoured to accommodate the parking lot. There is a potential for adverse impact due to unexpected or unavoidable damage during the removal of the existing fill. Impacts would be minimized through the use of mitigation measures, as identified in chapter 2.

**Move Corridor 1.** This move corridor incorporates the staging area and transportation route for the deconstruction of the building prior to its relocation. In addition, it would cross the historic route of Hancock Avenue on the northern edge of the parking lot. It is unclear how much of the historic Telford Avenue lies under the altered grading that was implemented in 1961. Evidence of fill along this part of the corridor suggests that all or part of the avenue may still be intact and may be impacted by transport of the heavy building components across its roadbed. The potential of archeological resources associated with a post-Civil War industrial site (Pfeffer Brick and Tile Yard) occurs within the corridor, north of the parking lot and extending most of the way towards Steinwehr Avenue.

Although the industrial site is not of national significance, the quarry pits associated with that site were used as a town dump for decades and may likely contain countless artifact items that reflect Gettysburg's past. It is unclear how much development may have previously occurred to damage battle-related rail and earthen breastworks sites that bordered both sides of Steinwehr Avenue. Resources related to the battle may have survived in this lawn area. It had earlier been associated with farming activities through the years following the battle, until the expansion of the Rosensteel Museum in the last half of the 20th century. No residential or commercial development occurred thereon. In addition, the following documented archeological sites may be adversely impacted during the movement of the building across the landscape, through compaction and erosion:

- David Ziegler Farm Field No. 5 East Boundary Fence Breastworks
- David Ziegler Farm Field No. 6 East Boundary Fence Breastworks
- David Ziegler Farm Field No. 7 West Boundary Fence Breastworks
- David Ziegler Farm Field No. 9 North Boundary Stone Wall
- David Ziegler Farm Field Road

**Move Corridor 2.** This move corridor also incorporates the staging area and transportation route for the deconstruction of the building prior to its relocation. In addition, this move corridor would impact the sites of commemorative features within Ziegler's Grove, most especially the route of the pedestrian path that connected the Soldiers' National Cemetery with Hancock Avenue at the Brian Farm and the site of the Ziegler's Grove Observation Tower (also known as Tower No. 5). The site of Baxter's Brigade

Breastworks, a stone, earthen and rail work, occupied a site immediately west of Hancock Avenue within Move Corridor 2. The route also traverses a field over which Confederate and Union soldiers moved under fire from July 2-4, 1863, and where relics and evidence of that battle action may still occur, as was found during foundation work at the nearby Brian Barn in the late 1980s. A pre-Civil War brickyard, oven and quarry pit occupied a site within the larger field (David Ziegler Farm Field No. 8) between Ziegler's Grove and Steinwehr Avenue. Its exact location is unknown. The David Ziegler Farm Field No. 9 west boundary stone wall may also be adversely impacted during the move of the building. Evidence of earlier settlement improvements, including buildings, fences, and circulation features, also may occur in this field that antedates the 1863 battle and which may have occupied the site during its period of significance.

### **Cumulative Impacts**

Cumulative impacts on archeological resources from past, present, and reasonably foreseeable projects are described under alternative A. Collectively, these cumulative actions have contributed or would contribute adverse impacts on archeological resources due to the potential for ground disturbing activities. When the impacts on archeological resources as a result of alternative C are combined with the other projects in the study area, an overall adverse cumulative impact would be expected. Alternative C would contribute a noticeable adverse increment.

### **Conclusion**

Ground disturbing activities associated with removal of the Cyclorama building, associated staging areas for construction, use of the move corridors, and restoration of the 1863 landscape features have the potential to result in disturbance to archeological resources. The likelihood of finding National Register-eligible archeological resources in the building area is minimal, as the area has been heavily disturbed during construction of the Cyclorama building. Therefore, the potential for a loss of National Register-eligible resources in this area is minimal as well. However, National Register-eligible archeological resources could be lost or disturbed within the move corridors. In order to mitigate or avoid impacts to previously unknown archeological resources, ground disturbing activities would be preceded by archeological surveys and clearances. Alternative C would contribute a noticeable adverse increment to the adverse cumulative impact due to the potential for disturbance or loss of archeological resources in the area. Alternative C would not result in significant adverse impacts due to the fact that the building area has already been heavily disturbed and that any archeological impacts anticipated within the selected move corridor would be mitigated or avoided.

## **SCENIC RESOURCES**

### **METHODOLOGY**

Potential impacts on scenic resources are evaluated based on what is seen by the visitor during the approach to the study area, as well as what is seen by the visitor within the area itself. Therefore, the geographic study area for impacts on scenic resources extends to include those vantage points from which the Cyclorama building is visible. The scenic environment impacts both the visitor anticipation and experience at the site.

Resource-specific context for assessing impacts of the alternatives on scenic resources includes:

- the contribution of scenic resources relating to the 1863 battle at Gettysburg, the Cemetery Hill defense, and the commemorative-era elements.
- the contribution of scenic resources to the experience of visiting the park and the greater Gettysburg area.
- the effects of temporary construction and/or demolition on scenic resources and the park's significance.
- there is an intrinsic value in beautiful scenery or views that represent a historic setting.

## **ALTERNATIVE A: NO-ACTION: MOTHBALLING OF CYCLORAMA BUILDING**

### **Impacts**

Under alternative A, the Cyclorama building would remain in its original location on North Cemetery Ridge. Visitors would be able to view the exterior of the building; however access to the interior of the building would remain prohibited. Visitors would be unable to view the interior of the building, including its design and architecture, which may negatively impact the visitor experience.

The mass and height of the building would continue to block historic views of the area in all directions and render it impossible for viewers to understand the topography of the northern end of Cemetery Ridge, including both how and why it was used by Union commanders in establishing positions along the ridge. The building also occupies part of the ground covered by Ziegler's Grove, a historic woodlot and a prominent 1863 landscape feature on the northern end of Cemetery Ridge, which Union soldiers used for cover and concealment. Visitors would not be able to see the strategic elements of the location, which impacted the results of the battle. The building's mass and footprint would continue to dominate the Union monuments, markers, and tablets of units that fought in its vicinity, and it would continue to compete with other monuments along Cemetery Ridge that were intended to stand out prominently, including the equestrian statue of Major General George G. Meade, the U.S. Regulars Monument, and the Pennsylvania Monument. The prominence of these monuments would be overshadowed by the building, which could potentially decrease visitor appreciation of the area.

The building's mass and white color makes it highly visible from such key interpretive viewpoints as Meade's Headquarters, the Soldiers' National Cemetery, the High Water Mark, Little Round Top, the Virginia Memorial, the Peach Orchard, and the Culp's Hill Tower. It is particularly obtrusive in obscuring the historic landscape when viewing Cemetery Ridge from positions along Seminary Ridge, from which the Confederates launched their last major attack of the battle, Pickett's Charge. Visitor understanding of the key terrain of the Union line, known as the fishhook, would continue to be negatively impacted by the position of the building.

Minor routine repairs to the Cyclorama building, as part of this alternative, may temporarily impact scenic resources by interrupting viewsheds with maintenance equipment or vehicles.

## **Cumulative Impacts**

Cumulative impacts on scenic resources from past, present, and reasonably foreseeable projects would result from demolition of the old visitor center building and its parking lot, rehabilitation of battle-era cultural landscapes and historic structures, ongoing removal of non-contributing residential and commercial development, and development of US Route 30 and various commercial developments. Reasonably foreseeable actions include growth and development on private property adjacent to and near park resources and development on private lands and infrastructure improvements that create new and higher capacity transportation corridors affecting the preservation of scenic resources at Civil War battlefields elsewhere. However, battlefield rehabilitation efforts on NPS owned lands within the park boundaries by the NPS and its partners and ongoing removal of the old visitor center building and its parking lot and non-contributing residential development have slightly improved scenic resources in the park. Collectively, these cumulative actions have contributed or would contribute to an adverse and beneficial impact on scenic resources, depending on the viewshed. When adverse impacts on scenic resources as a result of alternative A are combined with other projects in the study area, an overall adverse cumulative impact would be expected. Alternative A would contribute a large portion of the cumulative impact.

## **Conclusion**

Under alternative A, adverse impacts would be expected from the continued obstruction of historic viewsheds by the dilapidated and modern Cyclorama building. Alternative A would continue to interrupt the unique scenic historic views of Pickett's Charge and the Battle of Gettysburg due to the building's location in the middle of North Cemetery Ridge and its viewsheds. Although the Cyclorama building would continue to impede historic viewsheds, these adverse impacts would not be significant, as limited scenic views of the 1863 battle at Gettysburg, the Cemetery Hill defense, and the commemorative-era elements would be available in the area surrounding the building.

## **ALTERNATIVE B: DEMOLITION OF THE CYCLORAMA BUILDING (NPS PREFERRED)**

### **Impacts**

Alternative B would demolish the Cyclorama building and allow full rehabilitation on the site of the landscapes of the 1863 battle and the commemorative eras. Because the building would be demolished, visitors would have improved access to the historic topography of the Union battle line along Cemetery Ridge. Prominent commemorative monuments and markers would no longer be overshadowed by the mass and height of the Cyclorama building and would once again be viewed as the veterans of the battle had intended them to be viewed. Numerous monuments placed on the battlefield by veterans that had been displaced by the Cyclorama building and its site development could be returned to their original positions. Under this alternative, visitors would have new opportunities to understand key terrain of the Union line, known as the fishhook, as well as views of this key terrain from Little Round Top, the Culp's Hill Tower, and the Confederate battle line, in particular the highly visited Virginia and North Carolina memorials, and from the fields of Pickett's Charge as visitors walk across. Rehabilitated battle era and commemorative features in the area now occupied by the Cyclorama building would offer opportunities to park visitors for battlefield study not seen in more than two generations. Visitors may better understand the strategy and conclusion of Pickett's Charge under this alternative, since the scenic resources and viewsheds would be restored to their original state.

Demolition of the Cyclorama building, as part of this alternative, may impact scenic resources temporarily during demolition activities.

### **Cumulative Impacts**

Cumulative impacts on scenic resources within the park from past, present, and reasonably foreseeable projects would be adverse and are described under alternative A. Collectively, these cumulative actions have contributed or would contribute to an adverse impact on scenic resources. When beneficial impacts and temporary construction adverse impacts on scenic resources as a result of alternative B are combined with other projects in the study area, an overall adverse cumulative impact would be expected. Alternative B would contribute to cumulative impacts and would not alter the overall level of cumulative impacts.

### **Conclusion**

Under alternative B, beneficial impacts would be expected from full rehabilitation of historic viewsheds on North Cemetery Ridge with the demolition of the Cyclorama building. Alternative B would allow for the unique scenic historic and cultural resources of Pickett's Charge and the Battle of Gettysburg to be restored and allow for better visitor understanding of the history of the site. Adverse impacts may result during demolition of the building, but these would not be significant because they would be temporary in nature and lasting only as long as the demolition period. Thus, while alternative B may have temporary adverse impacts to scenic resources during demolition, the removal of the Cyclorama building from within the historic viewsheds related to the 1863 battle at Gettysburg, the Cemetery Hill defense, and the commemorative-era would result in an overall beneficial impact on scenic resources.

## **ALTERNATIVE C: RELOCATION OF THE CYCLORAMA BUILDING OUTSIDE THE PARK BY A NON-NPS ENTITY**

### **Impacts**

Impacts of alternative C on scenic resources would be similar to those described under alternative B, as ultimately the Cyclorama building would be removed from within the key viewsheds within the study area.

In addition, the implementation of alternative C would have impacts on scenic resources and the historic Business US Route 15 corridor, but possible long-term adverse visual intrusions of the building depending upon where it would be relocated to. Relocation of the Cyclorama building, as part of this alternative, may impact scenic resources temporarily during construction activities.

### **Cumulative Impacts**

Cumulative impacts on scenic resources within the park from past, present, and reasonably foreseeable projects would be adverse and are described under alternative A. Collectively, these cumulative actions have contributed or would contribute to an adverse impact on scenic resources. When beneficial impacts and temporary construction and relocation adverse impacts on scenic resources as a result of alternative C are combined with other projects in the study area, an overall adverse cumulative impact would be expected. Alternative C would contribute to cumulative impacts and would not alter the overall level of cumulative impacts.



## **Conclusion**

Under alternative C, beneficial impacts would be expected from full rehabilitation of historic viewsheds on North Cemetery Ridge with the relocation of the Cyclorama building. Alternative C would allow for the unique scenic historic and cultural resources of Pickett's Charge and the Battle of Gettysburg to be restored and allow for better visitor understanding of the history of the site. Adverse impacts may result during relocation of the building, but these would not be significant, as they would be temporary in nature and the key viewsheds would be restored once the building site and move corridors have been rehabilitated. Thus, while alternative C may have temporary adverse impacts to scenic resources during relocation of the building, the removal of the Cyclorama building would result in overall beneficial impacts.

## **LOCAL ROADS AND PARK ACCESS**

### **METHODOLOGY**

Potential impacts on local roads and park access are assessed based on the current description of roads and access presented in this document. Therefore, the geographic study area for local roads and park access extends beyond the study area to include Hancock Avenue, Steinwehr Avenue/Emmitsburg Road (Business US Route 15), and Taneytown Road (PA Route 134). The purpose of park roads is to enhance visitor experience, while providing safe and efficient circulation and access to park resources. Circulation is also dependent on site access via entry roads and regional roadways.

Resource-specific context for assessing impacts of the alternatives on local roads and park access includes:

- The contribution of local roads and park access to the experience of visiting the park and the greater Gettysburg area.
- The effects of temporary construction and/or demolition on local roads and park access.

## **ALTERNATIVE A: NO-ACTION: MOTHBALLING OF CYCLORAMA BUILDING**

### **Impacts**

Under alternative A, the park would mothball the existing Cyclorama building. The park would execute maintenance projects to ensure appropriate building envelope protection of the structure and install adequate ventilation for the building. The existing Cyclorama building parking lot and Hancock Avenue would remain open for visitor use. Any need for construction or service related vehicles could be accommodated in the existing parking lot. Minimal construction traffic would be encountered on the site. Construction traffic would enter the project site through the existing parking lot, from PA Route 134. This alternative could result in a slight increase in traffic during times of minimal construction; however the impact would be slight.

The existing Cyclorama building parking lot would be rehabilitated and reconfigured to continue to provide parking for the Soldiers' National Cemetery under this alternative. The reconfigured lot would provide 57 parking spaces for cars, four parking spaces for buses, and a trolley stop for the park and

Gettysburg Borough shuttle bus, known as the Freedom Transit. Traffic congestion may take place during the reconfiguration of the parking lot, since visitors and demolition workers would not be able to use areas of the parking lot. Additional temporary impacts to site access would result as visitors become aware of the reduced parking and need to use the shuttle bus in this area.

### **Cumulative Impacts**

Cumulative impacts on local roads and park access within the study area from past, present, and reasonably foreseeable projects would be beneficial. Construction of the new park museum and visitor center has directed visitor traffic away from the Cyclorama building area, resulting in a decrease in the amount of traffic flow in that area of the park and improved access for visitors arriving to the new park museum and visitor center. Collectively, these cumulative actions have contributed or would contribute to a beneficial impact on local roads and park access. When temporary adverse impacts on local roads and park access as a result of alternative A are combined with other projects in the study area, an overall beneficial cumulative impact would be expected. Alternative A would contribute a small amount to cumulative impacts and would not alter the overall level of cumulative impacts.

### **Conclusion**

Under alternative A, temporary adverse impacts would be expected from minimal construction traffic related to routine maintenance for mothballing the Cyclorama building. Impacts on local roads and park access would not be significant because they would be temporary in nature and related to the mothballing process. Once complete, the contribution of local roads and park access to the experience of visiting the park and the greater Gettysburg area would return to normal conditions.

## **ALTERNATIVE B: DEMOLITION OF THE CYCLORAMA BUILDING (NPS PREFERRED)**

### **Impacts**

Under alternative B, the Cyclorama building would be demolished, and the landscape would be rehabilitated to reflect its historic 1863 battle and commemorative conditions. Demolition and visitor traffic would be kept separate where possible, which would decrease potential traffic conflicts. Demolition traffic would enter the project site from PA Route 134 via the existing parking lot. The southernmost bay of the existing Cyclorama building parking lot would be used as a temporary road and staging area for the contractor and provide parking for workers and demolition equipment. Local roads and park access would experience temporary adverse impacts during demolition by the possibility of construction traffic or temporary road closures; however, the park would work to minimize impacts by implementing construction during periods of minimal visitation.

The existing Cyclorama building parking lot would be rehabilitated and reconfigured to continue to provide parking for the Soldiers' National Cemetery as described under alternative A, so similar impacts would result.

### **Cumulative Impacts**

Cumulative impacts on local roads and park access within the study area from past, present, and reasonably foreseeable projects would be beneficial and are described under alternative A. Collectively,

these cumulative actions have contributed or would contribute to a beneficial impact on local roads and park access. When temporary adverse impacts and long-term beneficial impacts on local roads and park access as a result of alternative B are combined with other projects in the study area, an overall beneficial cumulative impact would be expected. Alternative B would contribute to cumulative impacts and would not alter the overall level of cumulative impacts.

## **Conclusion**

Under alternative B, temporary adverse impacts would be expected from construction traffic related to demolition of the Cyclorama building. In addition, long-term, beneficial impacts would be expected from the reconfiguration of the parking lot. Impacts on local roads and park access would not be significant because they would be temporary in nature, lasting only as long as the demolition period, and would be minimized by keeping construction and visitor traffic separated as much as possible and scheduling construction during low visitation periods. Once complete, the contribution of local roads and park access to the experience of visiting the park and the greater Gettysburg area would return to pre-demolition conditions.

## **ALTERNATIVE C: RELOCATION OF THE CYCLORAMA BUILDING OUTSIDE THE PARK BY A NON-NPS ENTITY**

### **Impacts**

Under alternative C, the Cyclorama building would be relocated to a site outside of the park boundaries by a non-NPS entity. Depending on the type of removal used for the building, impacts vary. If the building is deconstructed and then reconstructed, less coordination with the Pennsylvania Department of Transportation would be required than if the new owner breaks the building into two sections and moves each section. The deconstruction and reconstruction method also would create less traffic congestion, because much of the building would be transported on typical highway tractor trailers. If the building is moved in two large sections, the contractor would have to use large steerable dollies to move the 125-foot diameter drum, which would require road closures and cause traffic congestion.

Construction and visitor traffic would be kept separate where possible. Construction traffic would enter the project site from PA Route 134 via the existing parking lot. The southernmost bay of the existing Cyclorama building parking lot would be used as a temporary road and staging area for the contractor and provide parking for workers and construction equipment. Local roads and park access would experience temporary adverse impacts during demolition by the possibility of construction traffic or temporary road closures; however, the park would work to minimize impacts by implementing construction during periods of minimal visitation.

Where the move path of the building crosses or uses public roads, traffic would be diverted for the period of time required to prepare the road, move the building, and remove any items used to protect the road. Local roads and park access would be slightly impacted during construction. If the building is moved in several smaller pieces, the corridor would be narrower, but would still be the same length. Many more trips would be required, though, and the resulting congestion would be for a longer period of time.

The main move corridor, which would be determined by the relocation site, would require the import of clean fill soil to create an even graded path. Once the building is moved, additional construction traffic would result to allow for the removal of the imported clean fill soil. The rehabilitation of the landscape around the original building site also would generate more construction traffic.

Depending on the final destination of the building, two state routes on the east and west sides of the site may be included in the move route. They are Business US Route 15 to the west and PA Route 134 to the east. This would require a lot of coordination with the Pennsylvania Department of Transportation.

The existing Cyclorama building parking lot would be rehabilitated and reconfigured to continue to provide parking for the Soldiers' National Cemetery as described under alternative A, so similar impacts would result.

### **Cumulative Impacts**

Cumulative impacts on local roads and park access within the study area from past, present, and reasonably foreseeable projects would be beneficial and are described under alternative A. Collectively, these cumulative actions have contributed or would contribute to a beneficial impact on local roads and park access. When temporary adverse impacts and long-term beneficial impacts on local roads and park access as a result of alternative C are combined with other projects in the study area, an overall beneficial cumulative impact would be expected. Alternative C would contribute to cumulative impacts and would not alter the overall level of cumulative impacts.

### **Conclusion**

Under alternative C, temporary adverse impacts would be expected from construction traffic related to relocation of the Cyclorama building. In addition, long-term, beneficial impacts would be expected from the reconfiguration of the parking lot. Similar to alternative B, the impact on local roads and park access would not be significant, as they would be temporary in nature, lasting only as long as the dismantling and relocation period, and would be minimized through traffic controls and scheduling construction during low visitation periods. Once complete, the contribution of local roads and park access to the experience of visiting the park and the greater Gettysburg area would return to normal conditions.

## **GATEWAY COMMUNITIES**

### **METHODOLOGY**

Potential impacts on gateway communities are assessed based on the current description of gateway communities presented in this document. The impact analysis examines the impacts to the Steinwehr Business Owners, a component of the gateway community in Gettysburg and adjacent to the park, under each alternative.

Resource-specific context for assessing impacts of the alternatives to gateway communities include:

- The contribution of gateway communities to the experience of visiting the park and the greater Gettysburg area.

- The effects of temporary construction and/or demolition on gateway communities.
- The uncertainty of outside effects of the economy on the gateway communities and the park.

## **ALTERNATIVE A: NO-ACTION: MOTHBALLING OF CYCLORAMA BUILDING**

### **Impacts**

Gateway communities located in the area surrounding the Cyclorama building are described in chapter 3. Under alternative A, the NPS would mothball the Cyclorama building and perform necessary routine maintenance repairs to the building. The presence of the vacated Cyclorama building may adversely impact the Steinwehr Business Owners, a segment of the park's gateway community, including many businesses located near the Cyclorama building. The discontinued use of the Cyclorama building may have reduced the number of people who frequented the businesses of the gateway community, and if so, a reduction would continue under alternative A.

### **Cumulative Impacts**

Cumulative impacts on gateway communities from past, present, and reasonably foreseeable projects would be beneficial. Since 2008 and the construction of the new park museum and visitor center, park visitation has increased yearly. Collectively, these cumulative actions have contributed or would contribute to a beneficial impact on gateway communities. When adverse impacts on gateway communities as a result of alternative A are combined with other projects in the study area, an overall beneficial cumulative impact would be expected. Alternative A would contribute to cumulative impacts and would not alter the overall level of cumulative impacts.

### **Conclusion**

Under the no-action alternative, adverse impacts to gateway communities would be expected from a potential reduction in business due to the mothballing of the Cyclorama building. Unfortunately, the impact of the current economic downturn on the Steinwehr Business Owners is unknown, so the true impact to gateway communities of the discontinued use of the Cyclorama building is also unknown. These potential adverse impacts, however, would not be significant, as the Cyclorama building has been closed for several years, so the potential reduction in business would be minimal. In addition, the gateway communities would continue to beneficially contribute to the experience of visiting the park and the greater Gettysburg area.

## **ALTERNATIVE B: DEMOLITION OF THE CYCLORAMA BUILDING (NPS PREFERRED)**

### **Impacts**

Under alternative B, the NPS would demolish the Cyclorama building and would rehabilitate the historic 1863 battle and commemorative landscapes. Rehabilitation of these landscape conditions could attract more visitors than are currently frequenting the area, which could result in more customers frequenting the Steinwehr businesses. This would be considered a beneficial impact to gateway communities. If the rehabilitated landscape does not attract more visitors to the area, then the alternative would not change the current economic conditions experienced by the gateway communities.

## **Cumulative Impacts**

Cumulative impacts on gateway communities from past, present, and reasonably foreseeable projects would be beneficial and are described under alternative A. Collectively, these cumulative actions have contributed or would contribute to a beneficial impact on gateway communities. When beneficial impacts on gateway communities as a result of alternative B are combined with other projects in the study area, an overall beneficial cumulative impact would be expected. Alternative B would contribute to cumulative impacts and would not alter the overall level of cumulative impacts.

## **Conclusion**

Under alternative B, potential beneficial impacts to gateway communities could be expected from a possible increase in business for the Steinwehr Business Owners from a potential increase in visitors to the rehabilitated landscape at North Cemetery Ridge. Unfortunately, the impact of the current economic downturn on the Steinwehr Business Owners is unknown, so the true impact to gateway communities is unknown. These potential beneficial impacts, however, would not be significant, as the presence of the gateway communities would continue to contribute to the experience of visiting the park and the greater Gettysburg area.

## **ALTERNATIVE C: RELOCATION OF THE CYCLORAMA BUILDING OUTSIDE THE PARK BY A NON-NPS ENTITY**

### **Impacts**

Under alternative C, a non-NPS entity would relocate the Cyclorama building outside of park boundaries and the historic district. In addition, the NPS would rehabilitate the 1863 battle and commemoration landscape. Rehabilitation of these landscape conditions could attract more visitors than are currently frequenting the area, which could result in more customers frequenting the Steinwehr businesses. This would be a beneficial impact to a segment of the gateway communities.

If public use is prohibited in the building, the community would continue to experience an impact as under alternative A. Overall, this alternative would result in a long-term, beneficial impact to gateway communities if rehabilitation of the 1863 landscape conditions attracts more visitors to the area. If the rehabilitated landscape does not attract more visitors to the area, then the alternative would result in no change the economic conditions experienced by the gateway communities.

### **Cumulative Impacts**

Cumulative impacts on gateway communities from past, present, and reasonably foreseeable projects would be beneficial and are described under alternative A. Collectively, these cumulative actions have contributed or would contribute to a beneficial impact on gateway communities. When potential beneficial impacts on gateway communities as a result of alternative C, as well as potential adverse impacts if the rehabilitated landscape does not attract more visitors, are combined with other projects in the study area, an overall beneficial cumulative impact would be expected. Alternative C would contribute to cumulative impacts and would not alter the overall level of cumulative impacts.

## Conclusion

Under alternative C, potential beneficial impacts to gateway communities could be expected from a possible increase in business for the Steinwehr Business Owners from a potential increase in visitors to the rehabilitated landscape at North Cemetery Ridge. However, if the rehabilitated landscape does not attract more visitors to the area, the economic conditions experienced by the gateway communities could remain the same. Unfortunately, the impact of the current economic downturn on the Steinwehr Business Owners is unknown, so the true impact to gateway communities of the relocation of the Cyclorama building is also unknown. These potential impacts, however, would not be significant, as the presence of the gateway communities would continue to contribute to the experience of visiting the park and the greater Gettysburg area.

## VISITOR USE AND EXPERIENCE

### METHODOLOGY

Potential impacts on visitor use and experience are assessed based on the current description of visitor use and experience presented in this document. Enjoyment of park resources and values by visitors is part of the fundamental purpose of all parks. Past interpretive and administrative planning documents provided background on changes to visitor use and experience over time. Anticipated impacts on visitor use and experience were analyzed using information from previous studies. For this analysis, visitor use and experience includes visitor understanding, satisfaction, and safety, as well as availability of visitor options.

Resource-specific context for assessing impacts of the alternatives to visitor use and experience includes:

- visitor understanding of the 1863 battle and commemorative-era periods.
- the contribution of the Cyclorama building to the visitor experience of the park and the greater Gettysburg area.
- the ability for visitors to enjoy a safe experience within the park.
- the effects of temporary construction and/or demolition on visitor use and experience.

### ALTERNATIVE A: NO-ACTION: MOTHBALLING OF CYCLORAMA BUILDING

#### Impacts

Under alternative A, the Cyclorama building would remain in its original location on North Cemetery Ridge, but there would be no visitor access to the interior of the building. Visitors would have the opportunity to view the exterior of the building, but there would be no additional interpretation of the building or additional signage. Visitors would be unable to view the interior of the building, including its design and architecture, which may adversely impact the visitor experience of those interested in the building and Neutra's works. However the building would remain in existence at its original location, which may attract visitors interested in Mission 66 and the work of Neutra. The overall experience would be tempered by the fact that minimal repairs would be made to the structure.

Visitors wishing to view the historic topography of the Union battle line on North Cemetery Ridge would continue to have the view blocked by the mass and height of the building. Prominent commemorative

monuments and markers such as the Meade Equestrian would continue to be dwarfed by the building. Numerous monuments placed on the battlefield by veterans would continue to be displaced by the Cyclorama building and its associated site development. Visitor understanding of the key terrain of the Union line, known as the fishhook, would continue to be marred by the intrusion of the building. The building would continue to adversely impact the view of this key terrain from the Confederate battle line, in particular the highly visited Virginia and North Carolina memorials and from the fields of Pickett's Charge as visitors walk across.

## **Cumulative Impacts**

Cumulative impacts on visitor use and experience from past, present, and reasonably foreseeable projects would result from construction of the new park museum and visitor center, demolition of the old visitor center building and removal of its parking lot, rehabilitation of battle-era cultural landscapes and historic structures, ongoing removal of non-contributing residential and commercial development, and development of US Route 30 East and various commercial developments. Reasonably foreseeable actions include growth and development on private property adjacent to and near park resources, which would change the character of the area from that of the historic battle era and may impede visitor interpretation. Additional battlefield rehabilitation efforts on NPS owned lands within the park boundaries by the NPS and its partners may enhance interpretation of the battlefield resources as part of the visitor experience. Development on private lands and infrastructure improvements that create new and higher capacity transportation corridors may affect the preservation of resources in a negative way. When the impacts on visitor use and experience as a result of alternative A are combined with other projects in the study area, both beneficial and adverse cumulative impacts would be expected. Alternative A would contribute both beneficial and adverse increments to the overall cumulative impact.

## **Conclusion**

Alternative A would result in both adverse and beneficial impacts on visitor use and experience. Adverse impacts on visitor use and experience could be expected because the historic topography and key battlefield views would be blocked by the Cyclorama building. Visitor understanding of the key terrain would continue to be marred by the intrusion of the building. Although some visitors looking for an example of Richard Neutra's architecture or a Mission 66 visitor center may appreciate the existence of the building in its original location and state, an adverse impact would result because the building would be inaccessible and its condition would remain worn. There may be some disagreement among members of the public as to whether or not the Cyclorama building should remain; however, its continued presence would constitute an intrusion on the unique scenic historic and cultural resources of Pickett's Charge and the Battle of Gettysburg due to the building's location in the middle of North Cemetery Ridge, interfering with visitor understanding of the 1863 battle and commemorative period landscape. When the impacts on visitor use and experience as a result of alternative A are combined with other projects in the study area, both beneficial and adverse cumulative impacts would be expected. Alternative A would contribute both beneficial and adverse increments to the overall cumulative impact. These potential impacts, however, would not be significant.



## **ALTERNATIVE B: DEMOLITION OF THE CYCLORAMA BUILDING (NPS PREFERRED)**

### **Impacts**

Alternative B would demolish the Cyclorama building and allow for full rehabilitation of the 1863 battle and commemorative period landscapes at the site. Because the building would be demolished, visitors would have improved access to the historic topography of the Union battle line along Cemetery Ridge. Prominent commemorative monuments and markers would no longer be overshadowed by the mass and height of the Cyclorama building, and visitors would once again be able to view the monuments and markers as the veterans of the battle had intended them to be viewed. Numerous monuments placed on the battlefield by veterans that had been displaced by the Cyclorama building and its site development could be returned to their original positions. Under this alternative, visitors would have new opportunities to understand key terrain of the Union line, known as the fishhook, as well as views of this key terrain from the Confederate battle line, in particular the highly visited Virginia and North Carolina memorials, and from the fields of Pickett's Charge as visitors walk across. Rehabilitated battle era and commemorative features in the area now occupied by the Cyclorama building would offer opportunities to park visitors for battlefield study not seen in more than two generations. Some visitors, however, may not favor demolition of the Cyclorama building, particularly due to its association with Neutra and the Mission 66 movement, which may deter some visitors from the area.

Demolition of the Cyclorama building associated with this alternative would result in a number of temporary adverse impacts to the visitor experience, since the landscape would be impeded by demolition activities, prohibiting visitor interpretation. Impacts on visitor safety during construction would be minimized by blocking visitor access to the site through fencing and monitoring.

### **Cumulative Impacts**

Cumulative impacts on visitor use and experience from past, present, and reasonably foreseeable projects are described under alternative A. Collectively, these cumulative actions have contributed or would contribute adverse and beneficial impacts on visitor use and experience. When the impacts on visitor use and experience as a result of alternative B are combined with these other projects in the study area, an overall beneficial cumulative impact would be expected. Alternative B would contribute a noticeable beneficial impact, as well as a small adverse impact.

### **Conclusion**

Alternative B would result in both beneficial and adverse impacts on visitor use and experience. Beneficial impacts on visitor use and experience could be expected because visitors would have improved access to the historic topography of the Union battle line along Cemetery Ridge. Visitors would have new opportunities to understand the key terrain of the Union line, which also would improve visitor experience. Some visitors, however, may not endorse demolition of the building due to its association with Neutra and Mission 66. There may be some disagreement among members of the public as to whether or not the Cyclorama building should remain; however, demolition of the Cyclorama building from the middle of North Cemetery Ridge under alternative B would improve upon the unique scenic historic and cultural resources of Pickett's Charge and the Battle of Gettysburg. When the impacts on visitor use and experience as a result of alternative B are combined with these other projects in the study area, an overall beneficial cumulative impact would be expected. Alternative B would contribute a

noticeable beneficial impact, as well as a small adverse impact. Considering all of these factors in the context of the park's purpose and significance, the potential adverse impacts of demolishing the Cyclorama building would not be significant.

## **ALTERNATIVE C: RELOCATION OF THE CYCLORAMA BUILDING OUTSIDE THE PARK BY A NON-NPS ENTITY**

### **Impacts**

The impact of alternative C on visitor use and experience would be the same as those described under alternative B, as the Cyclorama building would no longer be located within the park or the historic district.

### **Cumulative Impacts**

Cumulative impacts on visitor use and experience from past, present, and reasonably foreseeable projects are described under alternative A. Collectively, these cumulative actions have contributed or would contribute adverse and beneficial impacts on visitor use and experience. When the impacts on visitor use and experience as a result of alternative C are combined with these other projects in the study area, an overall beneficial cumulative impact would be expected. Alternative C would contribute a noticeable beneficial impact, as well as a small adverse impact.

### **Conclusion**

Alternative C would result in both beneficial and adverse impacts on visitor use and experience. Beneficial impacts on visitor use and experience could be expected because visitors would have improved access to the historic topography of the Union battle line along Cemetery Ridge. Visitors would have new opportunities to understand the key terrain of the Union line, which also would improve visitor experience. Some visitors, however, may not endorse removal of the building due to its association with Neutra and Mission 66. There may be some disagreement among members of the public as to whether or not the Cyclorama building should remain; however, removal of the Cyclorama building from the middle of North Cemetery Ridge under alternative C would improve upon the unique scenic historic and cultural resources of Pickett's Charge and the Battle of Gettysburg. When the impacts on visitor use and experience as a result of alternative C are combined with these other projects in the study area, an overall beneficial cumulative impact would be expected. Alternative C would contribute a noticeable beneficial impact, as well as a small adverse impact. Considering all of these factors in the context of the park's purpose and significance, the potential adverse impacts of removing the Cyclorama building would not be significant.

## **PARK OPERATIONS AND PARK FACILITIES**

### **METHODOLOGY**

Impact analyses are based on the current description of park operations and park facilities presented in chapter 3. Park operations and park facilities includes quality of effectiveness of the infrastructure and the ability to maintain the infrastructure used in the operation of the park in order to adequately protect and preserve vital resources and provide for an effective and safe employee and visitor experience.

Resource-specific context for assessing impacts of the alternatives on park operations and park facilities includes:

- parks must operate within the constraints of the unit-specific budget and number of staff positions that have been allocated by Congress and the NPS Director's office.
- park staff is not only responsible for activities within the study area but must also provide for an effective and safe experience and protect resources within the entire park.
- the effects of temporary construction and/or demolition on the ability of park staff to complete maintenance activities and ensure a safe environment.

## **ALTERNATIVE A: NO-ACTION: MOTHBALLING OF CYCLORAMA BUILDING**

### **Impacts**

Under alternative A, the Cyclorama building would remain in its original location on North Cemetery Ridge, and routine maintenance and repairs would be conducted by the park to maintain the building. The building would be kept as is and closed to protect it from vandalism and weather. In addition, the park would update and repair the fire protection and security alarms, which would require monitoring by the park, increasing facility costs and expenditures for the park, an adverse impact of the no-action alternative. Besides minor, routine repairs, the NPS would complete no further improvements and would undertake only minimal maintenance to keep the building weatherproofed. The NPS would periodically check the structure to ensure that it is not sustaining any damage from the elements or heat and moisture, but would not spend any additional funds to rehabilitate or restore any part of the structure.

Those portions of the landscape outside the immediate perimeter of the building would be rehabilitated to reflect 1863 battle and commemoration conditions, and the NPS would create and implement a landscape maintenance plan for North Cemetery Ridge. The commemorative areas, including Ziegler's Grove, would continue to be maintained as "Class A" and would be mown as often as necessary to maintain a 2 1/2 to 3 inch height. These actions would require some additional landscaping maintenance needs to carry out the work, but this would be minimal.

### **Cumulative Impacts**

Other past, present, and reasonably foreseeable actions that have had or would have impacts on park operations and park facilities include construction of the new park museum and visitor center, demolition of the old visitor center building and removal of its parking lot, rehabilitation of the battle-era cultural landscapes and historic structures, and the ongoing removal of non-contributing residential and commercial development. Construction of the new park museum and visitor center added a new park facility and enhanced park amenities. The new building requires park maintenance and resources, as does the rehabilitation of battle-era houses. Additionally, the removal of the old visitor center building, its parking lot, and non-contributing residential development decreases responsibilities and park resources necessary to maintain these structures. The impact of alternative A, in conjunction with the impacts of these other actions, would result in a beneficial cumulative impact on park operations and park facilities, as fewer facilities would require an input of staff time and park money. Alternative A would contribute a small adverse increment to the overall cumulative impact.

## **Conclusion**

Under alternative A, adverse impacts to park operations and park facilities could be expected since the park would continue to conduct minor, routine repairs and landscaping, in addition to updating and repairing the fire protection and security alarms, which requires monitoring and additional expenditures. Alternative A would contribute a small adverse impact to the beneficial cumulative impact on park operations and park facilities. The overall ability of park staff and funding to meet the demands of alternative A would be minimal and would not limit the ability of park staff to respond to other resource and visitor needs within the park. The minimal impacts identified under alternative A would not be significant because staffing and operations would not exceed the existing budgetary constraints and park staff would continue to provide for an effective and safe experience.

## **ALTERNATIVE B: DEMOLITION OF THE CYCLORAMA BUILDING (NPS PREFERRED)**

### **Impacts**

Under alternative B, the Cyclorama building would be demolished, and the landscape would be rehabilitated to reflect the 1863 battle and commemoration-era conditions. The park would lose one of its buildings; however, the building has not been in use since 2008 and requires park funds to maintain and preserve the structure. Demolition of the building would decrease maintenance expenditures and responsibility to protect the building, resulting in a beneficial impact by freeing up those allocated funds for other uses throughout the park.

The landscape of North Cemetery Ridge would be rehabilitated to reflect 1863 battle and commemoration conditions, and the NPS would create and implement a landscape maintenance plan for the area. Park maintenance would have to add the building footprint and surrounding areas to their current landscaping duties. This would represent an additional 1.5 acres. The commemorative areas, including Ziegler's Grove, would continue to be maintained and mown as often as necessary to adhere to the CLR stipulations. These actions would require some additional landscaping maintenance needs to carry out the work, but this would be minimal.

### **Cumulative Impacts**

Cumulative impacts on park operations and park facilities from past, present, and reasonably foreseeable projects are described under alternative A. The impact of alternative B, in conjunction with the impacts of these other actions, would result in a beneficial cumulative impact on park operations and park facilities, as fewer facilities would require an input of staff time and park money. Alternative B would contribute a large beneficial increment to the overall cumulative impact due to the fact that the Cyclorama building would no longer require an input of staff time and money to maintain.

## **Conclusion**

Under alternative B, beneficial impacts to park operations and park facilities could be expected because the park would decrease maintenance expenditures and responsibility for the vacant Cyclorama building. The overall ability of park staff and funding to meet the demands of alternative B would be minimal and would improve the ability of park staff to respond to resource and visitor needs within other areas of the park. Alternative B would contribute a large beneficial impact to the beneficial cumulative impact on park

operations and park facilities. The beneficial impacts identified under alternative B would not be significant, because staffing and operations would not exceed the existing budgetary constraints and park staff would continue to provide for an effective and safe experience.

## **ALTERNATIVE C: RELOCATION OF THE CYCLORAMA BUILDING OUTSIDE THE PARK BY A NON-NPS ENTITY**

### **Impacts**

The impact of alternative C on park operations and park facilities would be the same as those described under alternative B. Once the building is removed from the park and the historic district, the park would decrease maintenance expenditures and responsibilities for the study area.

### **Cumulative Impacts**

Cumulative impacts on park operations and park facilities from past, present, and reasonably foreseeable projects are described under alternative A. The impact of alternative C, in conjunction with the impacts of these other actions, would result in a beneficial cumulative impact on park operations and park facilities, as fewer facilities would require an input of staff time and park money. Alternative C would contribute a large beneficial increment to the overall cumulative impact due to the fact that the Cyclorama building would no longer require an input of staff time and money to maintain.

### **Conclusion**

Under alternative C, beneficial impacts to park operations and park facilities could be expected because the park would decrease maintenance expenditures and responsibility for the vacant Cyclorama building. The overall ability of park staff and funding to meet the demands of alternative C would be minimal and would improve the ability of park staff to respond to resource and visitor needs within other areas of the park. Alternative C would contribute a large beneficial impact to the beneficial cumulative impact on park operations and park facilities. The beneficial impacts identified under alternative C would not be significant, because staffing and operations would not exceed the existing budgetary constraints and park staff would continue to provide for an effective and safe experience.

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# 5

## CONSULTATION AND COORDINATION

Director's Order 12 requires the NPS to make "diligent" efforts to involve the interested and affected public in the NEPA process. This process, known as scoping, helps to determine the important issues and eliminate those that are not; allocate assignments among the interdisciplinary team members and/or other participating agencies; identify related projects and associated documents; identify other permits, surveys, consultations, etc. required by other agencies; and create a schedule that allows adequate time to prepare and distribute the environmental document for public review and comment before a final decision is made. This chapter documents the scoping process for the proposed action, identifies future compliance needs and permits, and includes the list of preparers for the document.

### BRIEF HISTORY OF PLANNING AND PUBLIC INVOLVEMENT

The scoping process is initiated at the beginning of a NEPA project to identify the range of issues, resources, and alternatives to be addressed in the document. Typically, both internal and public scoping is conducted to address these elements. During the preparation of this EA, state and federal agencies also were contacted to uncover any additional planning issues and to fulfill statutory requirements. The planning process for the proposed action was initiated during the internal, agency, and public scoping in the summer of 2010. This process introduced the purpose and need of the project and potential actions that could be included with the disposition of the Gettysburg Cyclorama building. Discussions with interested agencies and individuals were initiated at this time.

### INTERNAL SCOPING

An internal scoping meeting was held on August 11, 2010. The park established team roles and began discussions on impact topics and alternatives. The park also established a public scoping timeline at the meeting in order to ensure public participation at the necessary points throughout the project.

### PUBLIC SCOPING

Public scoping for this EA began with a press release, which was sent out to news organizations, community partners, historic preservation and civil war organizations, and others in July of 2010, stating the park's intentions to begin the EA process for the Cyclorama building. The official public scoping period began on August 24, 2010 and concluded October 1, 2010. During this time, public comments were accepted on the NPS PEPC website and by mail. The park received 1,935 pieces of correspondence from the public. The majority of comments included suggestions for planning issues, alternatives, and

important impacts to be considered in the EA. In late August, an article about the EA was published in the park newsletter and a second press release was published, which included an invitation to the public to attend two public scoping meetings. Paid advertisements and a radio interview also were used to inform the public about the upcoming meetings. Public scoping meetings were conducted by park staff on September 16 and 17, 2010. The meetings presented information about the planning process and the range of alternatives proposed and solicited input from the public about the purpose, need, objectives, and any other topics of concern.

## **AGENCY, TRIBAL, AND ORGANIZATION CONSULTATION**

The NPS initiated scoping with multiple agencies early in the planning process. Copies of the scoping letters and responses from the agencies, if applicable, can be found in appendix A.

### **FEDERAL AGENCIES**

Federal agencies engaged in scoping efforts included the USFWS and the ACHP. The park sent a letter to the USFWS for comments on February 24, 2011, and the USFWS replied on March 23, 2011 that no federally listed species under their jurisdiction are known or are likely to occur in the study area. The ACHP and the SHPO executed a MOA on July 29, 1999 for demolition of the Cyclorama building, and all mitigation was carried out. The MOA can be found in appendix B of this document.

### **AMERICAN INDIAN TRIBES**

The park also initiated coordination with the Delaware Tribe of Indians and the Delaware Nation on March 2, 2011. No responses were received from the tribes. The letters from the park can be found in appendix A.

### **STATE AND LOCAL AGENCIES**

State and local agencies engaged in scoping efforts included the Pennsylvania Department of Conservation and Natural Resources and SHPO. The park sent a letter to the Pennsylvania Department of Conservation and Natural Resources on February 23, 2011 and the department replied on March 9, 2011 that according to the information provided, the proposed alternatives are not anticipated to impact species or resources of concern in the vicinity of the project. In early April 2012 and on May 17, 2012, Zach Bolitho, Chief of Resource Management at the park, spoke with Andrew Rohrbaugh from the Pennsylvania Department of Conservation and Natural Resources about the February 24, 2011 submittals for PNDI review (appendix B). Two PNDI requests for review were submitted; one for the Cyclorama building area (#20110223284698) and one for the Visitor Use Overlay Area (#20110222284443). Both reviews expired one year after their initial date of review, which was March 9, 2011. However, only one PNDI needs to be re-issued; review # 20110223284698, which was assessed as No Impact Anticipated. The NPS would need to reapply under the same review number, and the same assessment will be awarded. The Visitor Use Overlay Area is no longer being considered within the alternatives, and therefore, there is no need to re-apply for that particular review.



The SHPO replied on September 10, 2010 that although proposed demolition is determined to be an adverse effect, the SHPO believes that demolition in order to return the area to its appearance at the time of the battle is the best alternative. The ACHP and the SHPO executed a MOA on July 29, 1999 for demolition of the Cyclorama building, and all mitigation was carried out. The MOA is included in appendix B of this document.

## **FUTURE COMPLIANCE NEEDS/PERMITS**

Implementation of the NPS preferred alternative would require that the NPS abide by applicable laws and regulations. The NPS would continue to coordinate with the SHPO, the Keeper of the National Register, and the ACHP throughout the life of the project. Prior to any ground disturbance, the proper authorities would obtain a National Pollutant Discharge Elimination System (NPDES) Stormwater Permit and local erosion and sediment control permits, as appropriate. Hazardous materials would be disposed of according to EPA Regulations. The appropriate utility companies would be contacted and utilities would be shut off and terminated according to the specific company requirements. The contractor would consult with the appropriate authority having jurisdiction in the study area to ensure the proper permits are in place prior to any development or demolition activities.

## **LIST OF PREPARERS**

This document was prepared by Vanasse Hangen Brustlin, Inc. (VHB), with input from park staff at Gettysburg National Military Park, the NPS Northeast Region, the NPS Office of the Solicitor for the Northeast Region, the NPS Environmental Quality Division, and the NPS Office of the Solicitor for the Environmental Quality Division.

<b>Vanasse Hangen Brustlin, Inc.</b>		
Tricia Wingard	Project Principal	Guidance of NEPA process; document review; and project management
Jake Hoogland	IDT Facilitator, Project Manager	Guidance of NEPA process; document review; and project management; IDT facilitation
Diane Ditzel	Environmental Planner	Document preparation; natural resources review and analysis, public comment analysis

## **CONTRIBUTORS AND REVIEWERS**

<b>Gettysburg National Military Park</b>	
Bob Kirby	Superintendent
Brion Fitzgerald	Deputy Superintendent
Zach Bolitho	Chief of Resource Management
Bert Herbert	Archeologist
Winona Peterson	Cultural Resource Specialist
Scott Hartwig	Supervisory Historian
Kathy Harrison	Historian
Sara Koenig	Biologist
Katie Lawhon	Management Assistant
Marcus Pratt	Chief of Maintenance
Charles Cartwright	Administrative Officer

<b>NPS Northeast Regional Office</b>	
Jacki Katzmire	Regional Environmental Coordinator, Northeast Region
Cheryl Sams O'Neill	Landscape Architect
<b>NPS Office of the Solicitor, Northeast Region</b>	
Martha Ansty	Attorney
<b>NPS Environmental Quality Division</b>	
David Jacob	Environmental Protection Specialist
<b>NPS Office of the Solicitor, Environmental Quality Division</b>	
Jason Waanders	Attorney

## **LIST OF RECIPIENTS**

The EA will be on formal public and agency review for 30 days and has been distributed to a variety of interested individuals, agencies, and organizations. It also is available on the internet at <<http://parkplanning.nps.gov/GETT>>, and hard copies are available at the Adams County Public Library (Gettysburg location).

Hard copies of the EA were distributed to the following agencies/organizations by the NPS:

- Township Supervisors and Township Managers for Cumberland, Freedom, Mt. Joy, Mount Pleasant and Straban townships
- Adams County Commissioners
- Adams County Manager
- Adams County Office of Planning and Development
- Delaware Nation
- Delaware Tribe of Indians
- Pennsylvania Historical and Museum Commission  
Bureau for Historic Preservation
- PA Dept. of Conservation and Natural Resources
- Gettysburg Borough Council
- Gettysburg Borough Manager
- Adams County Library
- US Fish & Wildlife PA Field Office
- US Army Corps of Engineers
- NPS NER offices
- NPS WASO offices

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# **APPENDIX A: RELEVANT CORRESPONDENCE**

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# United States Department of the Interior

## NATIONAL PARK SERVICE

GETTYSBURG NATIONAL MILITARY PARK    EISENHOWER NATIONAL HISTORIC SITE  
Gettysburg, PA 17325                      Gettysburg, PA 17325



February 24, 2011

N1621

Carole Copeyon  
U.S. Fish and Wildlife Service  
Endangered Species Section  
315 South Allen Street, Suite 322  
State College, PA 16801-4851

Re: Section 7 Consultation for Rare, Threatened, or Endangered Species for the *Cyclorama Building Implementation Plan/ Environmental Assessment* at Gettysburg National Military Park.

Dear Ms. Copeyon:

The National Park Service (NPS) is preparing an Environmental Assessment about the future of the Cyclorama Building located on North Cemetery Ridge within the Gettysburg National Military Park (Gettysburg NMP or Park). The demolition and removal of the Cyclorama Building is included as an action in the Park's General Management Plan, approved in 1999. In 2006, the NPS was sued over the action of demolishing the building. In March, 2010, the United States District Court directed the NPS to undertake a "site-specific environmental analysis on the demolition of the Cyclorama Center" and to consider "non-demolition alternatives" to its removal, before "any implementing action is taken on the Center."

The proposed Environmental Assessment (EA) describes four potential alternatives which will include no action, rehabilitation of the Cyclorama building, relocation of the Cyclorama building, or demolition of the Cyclorama building.

The enclosed map depicts the current Cyclorama building location, three potential move routes, and one potential relocation area within the Park's boundary. According to the Pennsylvania Natural Diversity Index website state-listed plant species may be impacted by one or more the above alternatives.

A copy of the Environmental Assessment, when completed, will be provided for further comment and review. If you have questions, please contact Zach Bolitho, Chief of Resource Management, at 717-338-4408 or [zachary\\_bolitho@nps.gov](mailto:zachary_bolitho@nps.gov).

Sincerely,

Bob Kirby  
Superintendent  
Enclosures (4)

1. PNDI Project Environmental Review Receipt: Relocation Site
2. PNDI Project Environmental Review Receipt: Demolition Site
3. USGS 7.5 Quad Map with Project Boundary
4. NPS Project Description Map



2011-0478



United States Department of the Interior  
NATIONAL PARK SERVICE

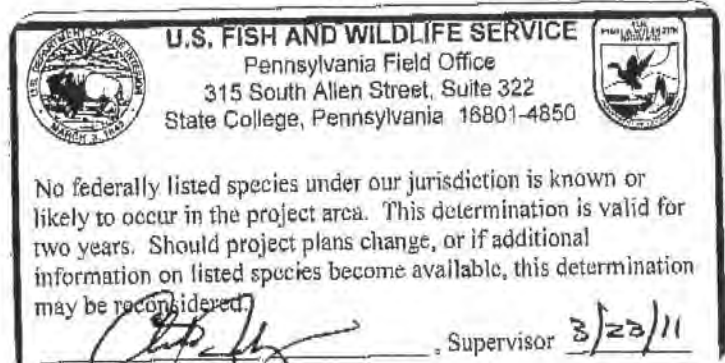
GETTYSBURG NATIONAL MILITARY PARK EISENHOWER NATIONAL HISTORIC SITE  
Gettysburg, PA 17325 Gettysburg, PA 17325



February 24, 2011

N1621

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U.S. Fish and Wildlife Service  
Endangered Species Section  
315 South Allen Street, Suite 322  
State College, PA 16801-4851



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# United States Department of the Interior

## NATIONAL PARK SERVICE

GETTYSBURG NATIONAL MILITARY PARK    EISENHOWER NATIONAL HISTORIC SITE  
Gettysburg, PA 17325                      Gettysburg, PA 17325



February 23, 2011  
N1621

PA Department of Conservation  
and Natural Resources  
Bureau of Forestry, Ecological Services Section  
400 Market Street, PO Box 8552  
Harrisburg, PA 17105-8552

Re: Section 7 Consultation for Rare, Threatened, or Endangered Species for the *Cyclorama Building Implementation Plan/ Environmental Assessment* at Gettysburg National Military Park.

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Sincerely,

Bob Kirby  
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**pennsylvania**DEPARTMENT OF CONSERVATION  
AND NATURAL RESOURCES

## BUREAU OF FORESTRY

March 9, 2011

PNDI Number:20110222284443

Zach Bolitho  
NPS Gettysburg National Military Park  
Fax 717-338-1548

Re: Cyclorama Building  
Cumberland Township, Gettysburg County

Dear Mr. Bolitho,

Thank you for the submission of the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Receipt Number 20110222284443 for review. PA Department of Conservation and Natural Resources screened this project for potential impacts to species and resources of concern under DCNR's responsibility, which includes plants, terrestrial invertebrates, natural communities, and geologic features only.

**Potential Impact Anticipated**

PNDI records indicate species or resources of concern are located in the project vicinity. Based on a detailed PNDI review, DCNR determined potential impacts to the following threatened or endangered species or species of special concern. Please note our new survey protocols are available at <http://www.gis.dcnr.state.pa.us/hgis-er/Login.aspx>.

**Please see attached sheet**

DCNR requests a survey for the attached species list

- A survey for the attached species should be conducted by a qualified botanist *at the appropriate time of year and then submitted to our office for review. Your botanist should carefully review the new DCNR Botanical Survey Protocols available at <http://www.gis.dcnr.state.pa.us/hgis-er/Login.aspx>. These protocols are recommended to ensure that the all necessary information is collected and that survey reports are prepared properly. It is the expectation of DCNR that these protocols will be followed when conducting surveys for species under our jurisdiction.*
- Your botanist should *fill out the field survey form while performing their survey: <http://www.naturalheritage.state.pa.us/InternetFieldSurveyForm.pdf>. Contact our office prior to the survey for detailed information about the species, or for a list of qualified surveyors.*
- Any target and non-target state-listed species found during the site visit should be reported to our office. Mitigation measures and monitoring may be requested if species or communities of special concern are found on or adjacent to site.
- If the land type(s) does not exist onsite a survey may not be necessary; please submit a habitat assessment report which describes the current land cover, habitat types and species found onsite.

**Conservation Measure—Voluntary Action**

The conservation measure species attached are currently unlisted in PA or terrestrial invertebrates of concern and therefore, are not target species for a survey. However, because of their ecological significance, a survey is suggested to identify and avoid potential impacts to these species/resources.

This response represents the most up-to-date summary of the PNDI data files and is valid for one (1) year from the date of this letter. An absence of recorded information does not necessarily imply actual conditions on-site. Should

conserve

sustain

enjoy

P.O. Box 8552, Harrisburg, PA 17015-8552 717-787-3444 (fax) 717-772-0271

PNDI Number: 20110222284443

project plans change or additional information on listed or proposed species become available, this determination may be reconsidered.

Should the proposed work continue beyond the period covered by this letter, please resubmit the project to this agency as an "Update" (including an updated PNDI receipt, project narrative and accurate map).

This finding applies to impacts to DCNR only. To complete your review of state and federally-listed threatened and endangered species and species of special concern, please be sure the U.S. Fish and Wildlife Service, PA Game Commission, and the Pennsylvania Fish and Boat Commission have been contacted regarding this project as directed by the online PNDI ER Tool found at [www.naturalheritage.state.pa.us](http://www.naturalheritage.state.pa.us).

Sincerely,



Andrew Rohrbaugh, Environmental Review Specialist FOR Chris Firestone, Wild Plant Program Mgr.  
Ph: 717-705-2823 ~ [c-arohrbau@state.pa.us](mailto:c-arohrbau@state.pa.us)

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PNDI #20110222284443

Please conduct a survey for the following species during an appropriate time of year:

Scientific Name	Common Name	PA Status	Proposed PA Status	Wetland Indicator	Habitat	Survey Date
<i>Carex buxbaumii</i>	Brown Sedge	TU	PR	OBL	calcareous swamps, swales and meadows	
<i>Carex tetanica</i>	A Sedge	PT	PT	FACW	calcareous wet meadows and swales	
<i>Helianthemum bicknellii</i>	Bicknell's Hoary Rockrose	PE	PE	n/a	dry rocky slopes, open woods and serpentine barrens	flowers June-early July
<i>Juncus biflorus</i>	Grass-leaved Rush	TU	PT	FACW	moist open woods, boggy fields, gravel pits, and ditches	fl/frt. Summer
<i>Juncus brachycarpus</i>	Short-fruited Rush	PE	PE	FACW	moist open ground	fl/frt. Summer
<i>Opuntia humifusa</i>	Prickly-pear Cactus	PR	PR	n/a	dry, shaley cliffs and barrens	flowers July
<i>Phlox pilosa</i>	Downy Phlox	TU	PE	FACU	moist meadows	flowers late May - June
<i>Quercus shumardii</i>	Shumard's Oak	PE	PE	FAC+	moist to wet woods	
<i>Ribes missouriense</i>	Missouri Gooseberry	PE	PE	n/a	rich woods	flowers late April-May
<i>Stylosanthes biflora</i>	Pencilflower	TU	PE	n/a	sandy fields, riverbanks, and dry rocky or shaly slopes	Flowers July-September
<i>Tirolaria discolor</i>	Cranefly Orchid	PR	PR	FACU	deciduous forests and stream banks	flowers July - August; leaf visible in winter and fall only
<i>Triosteum angustifolium</i>	Horse-gentian	TU	PE	n/a	woods and thickets	flowers May - early June; fruits July - August



PMDI #20110222284443

Please note if the following conservation measure species or their hosts are observed during the survey:

Scientific Name	Common Name	State rank	Global Rank	Adult Hosts	Caterpillar Hosts	Habitat
<i>Euphydryas phaeton</i>	Baltimore	S3	G4	nectar from flowers of milkweed, viburnum, and wild rose	turtlehead ( <i>Chelone glabra</i> ), hairy beardtongue ( <i>Penstemon hirsutus</i> ), English plantain ( <i>Plantago lanceolata</i> ), and false foxglove ( <i>Aureolaria</i> )	wet meadows, bogs, and marshes
<i>Euphyes dion</i>	Dion Skipper	S2	G4	nectar from flowers of pickerelweed, sneezeweed, burtonbush, Alsike clover, and others	various sedges including woolgrass ( <i>Scirpus cyperinus</i> ), hairy sedge ( <i>Carex lacustris</i> ), and shoreline sedge ( <i>Carex hyalinolepis</i> )	swamps, open marshes, and bogs
<i>Papilio cresphontes</i>	Giant Swallowtail	S2	G5	nectar from lantana, azalea, bougainvillea, bouncing Bet, dame's rocket, goldenrod, Japanese honeysuckle, and swamp milkweed	trees and herbs of the citrus family ( <i>Rutaceae</i> ) including Citrus species, prickly ash ( <i>Zanthoxylum americanum</i> ), hop tree ( <i>Ptelea trifoliata</i> ), and Common Rue ( <i>Ruta graveolens</i> )	rocky and sandy hillsides near streams or gullies
<i>Lycaena hylus</i>	Bronze Copper	S3	G5	flowers only occasionally, but have been seen taking nectar at blackberry and red clover	herbs of the buckwheat family ( <i>Polygonaceae</i> ) including curly dock ( <i>Rumex crispus</i> )	low wet areas such as bogs, marshes, wet meadows, ponds



**pennsylvania**  
DEPARTMENT OF CONSERVATION  
AND NATURAL RESOURCES

---

**BUREAU OF FORESTRY**

March 9, 2011

**PNDI Number:20110223284698**

Zach Bolitho  
NPS Gettysburg National Military Park  
Fax 717-338-1548

Re: Cyclorama Building Implementation Plan  
Cumberland Township, Gettysburg County

Dear Mr. Bolitho,

Thank you for the submission of the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Receipt Number 20110223284698 for review. PA Department of Conservation and Natural Resources screened this project for potential impacts to species and resources of concern under DCNR's responsibility, which includes plants, terrestrial invertebrates, natural communities, and geologic features only.

**No Impact Anticipated**

PNDI records indicate species or resources of concern are located in the vicinity of the project. However, based on the information you submitted concerning the nature of the project, the immediate location, and our detailed resource information, DCNR has determined that no impact is likely. No further coordination with our agency is needed for this project.

This response represents the most up-to-date summary of the PNDI data files and is valid for one (1) year from the date of this letter. An absence of recorded information does not necessarily imply actual conditions on-site. Should project plans change or additional information on listed or proposed species become available, this determination may be reconsidered.

Should the proposed work continue beyond the period covered by this letter, please resubmit the project to this agency as an "Update" (including an updated PNDI receipt, project narrative and accurate map). If the proposed work has not changed and no additional information concerning listed species is found, the project will be cleared for PNDI requirements under this agency for an additional year.

This finding applies to impacts to DCNR only. To complete your review of state and federally-listed threatened and endangered species and species of special concern, please be sure the U.S. Fish and Wildlife Service, PA Game Commission, and the Pennsylvania Fish and Boat Commission have been contacted regarding this project as directed by the online PNDI ER Tool found at [www.naturalheritage.state.pa.us](http://www.naturalheritage.state.pa.us).

Sincerely,

Andrew Rohrbau, Environmental Review Specialist FOR Chris Firestone, Wild Plant Program Mgr.  
Ph: 717-705-2823 ~ [c-arohrbau@state.pa.us](mailto:c-arohrbau@state.pa.us)

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P.O. Box 8552, Harrisburg, PA 17015-8552 717-787-3444 (fax) 717-772-0271



## United States Department of the Interior

### NATIONAL PARK SERVICE

GETTYSBURG NATIONAL MILITARY PARK    EISENHOWER NATIONAL HISTORIC SITE  
Gettysburg, PA 17325    Gettysburg, PA 17325



H4217

March 2, 2011

Dr. Brice Obermeyer  
1417 West Street  
Emporia, Kansas 66801

Dear Dr. Obermeyer:

The National Park Service (NPS) would like to initiate government-to-government consultation with the Delaware Nation pursuant to the National Historic Preservation Act of 1966, as amended (NHPA) (P.L. 91-190) and in accordance with the 2008 Nationwide Programmatic Agreement. The purpose of this letter is to formally request your participation in our planning processes at Gettysburg National Military Park and Eisenhower National Historic Site. We are contacting you to invite the Delaware Nation to discuss cultural and historic places of interest to the tribe and to provide information about the historical, cultural and religious importance of any sites within the boundaries of either park. We welcome your input and will continue to seek your comments as projects are developed. This letter is intended to make you aware of our desire to consult with you and to determine your level of interest in on-going park projects.

In addition, we also have a larger planning effort underway which involves the development of an Environmental Assessment for the Cyclorama building. Due to the complexity of that project, we will be initiating consultation with you under separate cover.

As a follow up to this letter, I will contact you by phone within the next few weeks to discuss the best way to initiate consultation between the park and the Delaware Nation. In the meantime, if you have any questions about our compliance processes in either park, or would like additional information, please contact Zachary Bolitho, Chief of Resource Management. Zach can be contacted via email at [zachary\\_bolitho@nps.gov](mailto:zachary_bolitho@nps.gov) or via the telephone at 717-334-1124 x 4408.

Thank you for your comments and participation in our planning process. We look forward to working with you.

Sincerely,

Bob Kirby  
Superintendent

TAKE PRIDE<sup>®</sup>  
IN AMERICA





United States Department of the Interior  
NATIONAL PARK SERVICE

GETTYSBURG NATIONAL MILITARY PARK    EISENHOWER NATIONAL HISTORIC SITE  
Gettysburg, PA 17325                      Gettysburg, PA 17325



H4217

March 2, 2011

Tamara Francis  
Cultural Preservation Director  
Delaware Nation  
P.O. Box 825  
Anadarko, Oklahoma 73005

Dear Ms Francis:

The National Park Service (NPS) would like to initiate government-to-government consultation with the Delaware Nation pursuant to the National Historic Preservation Act of 1966, as amended (NHPA) (P.L. 91-190) and in accordance with the 2008 Nationwide Programmatic Agreement. The purpose of this letter is to formally request your participation in our planning processes at Gettysburg National Military Park and Eisenhower National Historic Site. We are contacting you to invite the Delaware Nation to discuss cultural and historic places of interest to the tribe and to provide information about the historical, cultural and religious importance of any sites within the boundaries of either park. We welcome your input and will continue to seek your comments as projects are developed. This letter is intended to make you aware of our desire to consult with you and to determine your level of interest in on-going park projects.

In addition, we also have a larger planning effort underway which involves the development of an Environmental Assessment for the Cyclorama building. Due to the complexity of that project, we will be initiating consultation with you under separate cover.

As a follow up to this letter, I will contact you by phone within the next few weeks to discuss the best way to initiate consultation between the park and the Delaware Nation. In the meantime, if you have any questions about our compliance processes in either park, or would like additional information, please contact Zachary Bolitho, Chief of Resource Management. Zach can be contacted via email at [zachary\\_bolitho@nps.gov](mailto:zachary_bolitho@nps.gov) or via the telephone at 717-334-1124 x 4408.

Thank you for your comments and participation in our planning process. We look forward to working with you.

Sincerely,

Bob Kirby  
Superintendent

TAKE PRIDE<sup>®</sup>  
IN AMERICA 



Commonwealth of Pennsylvania  
**Pennsylvania Historical and Museum Commission**  
**Bureau for Historic Preservation**  
Commonwealth Keystone Building, 2<sup>nd</sup> Floor  
400 North Street  
Harrisburg, PA 17120-0093  
[www.phmc.state.pa.us](http://www.phmc.state.pa.us)

September 10, 2010

RECEIVED  
SEP 14 2010  
GETT/EISE

United States Department of the Interior  
National Park Service  
Gettysburg National Military Park  
Attn: Bob Kirby, Superintendent  
1195 Baltimore Pike, Suite 100  
Gettysburg, PA 17325

RE: Cyclorama Building, Gettysburg  
National Military Park, Adams County

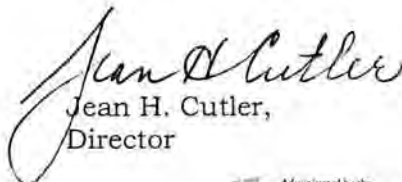
Dear Mr. Kirby:

This is in response to your request for our comments regarding the future of the Cyclorama Building. The National Park Service previously consulted with the State Historic Preservation Office concerning the General Management Plan for Gettysburg National Military Park and the proposed demolition of the Cyclorama Building. Through this process, the Cyclorama Building was determined to be individually eligible for listing in the National Register of Historic Places. The proposed demolition was determined to be an adverse effect, and upon consideration of the various alternatives, it was determined that there was no other feasible alternative to demolition. The consultation process concluded with the development of a Memorandum of Agreement, and all mitigation has been completed.

Of the alternatives currently presented through the NEPA process, in our opinion, the alternative involving the demolition of the Cyclorama Building in order to return the area to its appearance at the time of the battle is the best alternative. This is consistent with one of the primary objectives of the General Management Plan, specifically, the rehabilitation of the battlefield landscape in order to enhance park visitor's understanding of the battle and its outcome. In our opinion, it is more important, in terms of both stewardship and enhancing the experience of park visitors, to focus on the battle and the landscape instead of the 1962 Cyclorama Building, which, as time has demonstrated, is incapable of protecting and preserving the Cyclorama painting itself.

Please feel free to contact me at (717) 705-4035 if you would like to discuss this matter further.

Sincerely,

  
Jean H. Cutler,  
Director



Administered by the  
Pennsylvania Historical & Museum Commission  
Edward G. Rendell, Governor • Wayne S. Spilove, Chairman • Barbara Franco, Executive Director



# **APPENDIX B: MEMORANDUM OF AGREEMENT**

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**Advisory  
Council On  
Historic  
Preservation**

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The Old Post Office Building  
1100 Pennsylvania Avenue, NW, #809  
Washington, DC 20004

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JUL 29 1999

John A. Latschar  
Superintendent  
Gettysburg National Military Park  
National Park Service  
Gettysburg, PA 17325

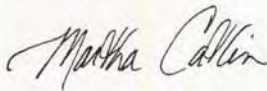
REF: Demolition of Cyclorama Building and Landscape Restoration  
Gettysburg National Military Park, Gettysburg, Pennsylvania

Dear Dr. Latschar:

Enclosed is your copy of the fully executed Memorandum of Agreement for the referenced project. By carrying out the terms of the Agreement, you will fulfill your responsibilities under Section 106 of the National Historic Preservation Act and the Council's regulations. The original Agreement will remain on file at our office.

Thank you for your cooperation.

Sincerely,



Martha Catlin  
Historic Preservation Specialist  
Office of Planning and Review

MEMORANDUM OF AGREEMENT  
between  
GETTYSBURG NATIONAL MILITARY PARK  
NATIONAL PARK SERVICE  
the  
PENNSYLVANIA STATE HISTORIC PRESERVATION OFFICER  
and the  
ADVISORY COUNCIL ON HISTORIC PRESERVATION

**WHEREAS**, the National Park Service (NPS) manages and administers the Gettysburg National Military Park (hereafter, the Park) as a unit of the National Park System and is responsible for preserving, maintaining, and interpreting the cultural resources of the Park unimpaired for the enjoyment of future generations; and

**WHEREAS**, the NPS has entered into a Nationwide Programmatic Agreement with the National Conference of State Historic Preservation Officers and the Advisory Council on Historic Preservation to carry out its Section 106 responsibilities with respect to the management of park areas; and

**WHEREAS**, preserving the significant historic landscapes of the Battle of Gettysburg is the fundamental purpose for which the Park was created by the Congress of the United States; and

**WHEREAS**, the mission of Gettysburg NMP is to preserve and protect the resources associated with the Battle of Gettysburg and the Soldiers' National Cemetery, and to provide understanding of the events that occurred here, within the context of American history; and

**WHEREAS**, beginning in 1995 the NPS conducted new research and analyses relating to the battle and its relationship to the terrain, and delineated those battlefield landscape features deemed significant to the outcome of the battle and consequently, after four years of planning and consultation with the public, produced a new General Management Plan; and,

**WHEREAS**, the General Management Plan proposes four separate but interrelated undertakings which are subject to review under Section 106 of the National Historic Preservation Act, as amended, to wit:

- Conservation and preservation treatment of the Cyclorama Painting, "The High Tide of the Confederacy," and relocation from its current display in the Cyclorama Building to a new display area in the proposed new Visitor Center/Museum Complex;
- Removal of the Cyclorama Building and its associated landscapes, roads, and parking;
- Rehabilitation of the historic landscapes of Ziegler's Grove; and,
- Construction of a new Visitor Center/Museum Complex to house new museum displays, including a new display gallery for the Cyclorama Painting; and

**WHEREAS**, these undertakings may have an effect upon the following historic properties:

- The historic landscapes of Gettysburg National Military Park;
- The Cyclorama Painting, designated a National Historic Object in 1944;
- The Cyclorama Building, determined eligible for the National Register of Historic Places in 1998; and;



NOW, THEREFORE, the NPS, acting through Gettysburg National Military Park; the Pennsylvania State Historic Preservation Officer (the SHPO); and the Advisory Council on Historic Preservation (the Council) mutually agree that the National Park Service may proceed with these undertakings, in accordance with the following stipulations:

#### STIPULATIONS

1. Prior to undertaking conservation and preservation treatment of the Cyclorama Painting, the NPS will prepare a complete history of the Painting, including detailed analyses of prior treatments, a current condition assessment, a detailed conservation and treatment plan, and proposed display and interpretive plans for the painting within the new Visitor Center/Museum complex. The NPS will submit these reports and proposed plans to the SHPO and the Council for their review and comment.
2. Prior to removal of the Cyclorama Building, the NPS will provide proposed landscape treatment plans for the rehabilitation of the historic landscapes of Ziegler's Grove to the SHPO and the Council for their review and comment.
3. Prior to removal of the Cyclorama Building, the NPS will confirm that sufficient funds have been secured for the rehabilitation of the historic landscapes of Ziegler's Grove. Prior to removal of the Cyclorama Building, the NPS shall contact the Historic American Buildings Survey (HABS) to determine the level and kind of recordation required for the property. The NPS shall ensure that all documentation is completed and accepted by HABS prior to the removal of the Cyclorama Building, and that copies of this documentation are made available to the Library of Congress, the SHPO and other appropriate archives designated by the SHPO.
4. The NPS will provide a permanent exhibit on development of the park within the new museum, including a section discussing the Cyclorama Building as an example of the Mission 66 period of the NPS. Based upon the exhibit design, the NPS study *Mission 66: Contextual History of Park Service Planning, Design, and Construction, 1945-1972*, " and other appropriate sources, the NPS will produce an exhibit catalog on the Mission 66 program and the development of visitor centers throughout the National Park System. The NPS will consult with the SHPO, and will invite interested parties to participate as members of an advisory committee, in the development of this exhibit and exhibit catalog.
5. In order to consider any potential effects of the development of the proposed new Visitor Center/Museum complex upon the historic properties of Gettysburg NMP, the NPS will initiate Section 106 consultations early in the planning process of the project and will carry out Section 106 responsibilities for the visitor center/museum complex as a separate undertaking.

#### RELATIONSHIP TO OTHER AGREEMENTS

Except as stipulated above, nothing in this agreement supercedes provisions of the Nationwide Programmatic Agreement or any other implementation agreement between the Council, the SHPO, and the NPS.

#### DISPUTE RESOLUTION

Should the Council or the SHPO object within 30 days to any plans or documentation provided pursuant to this agreement, the NPS shall consult with the objecting party to resolve the objection. If the NPS determines that the objection cannot be resolved, the NPS shall request the further comments of the Council pursuant to 36 CFR Part 800.6(b). Any Council comment provided in response to such a request will be

taken into account by the NPS in accordance with 36 CFR Part 800.6(c)(2) with reference only to the subject of the dispute; the NPS's responsibility to carry out all actions under this agreement that are not the subjects of the dispute will remain unchanged.

#### MONITORING, TERMINATION, AND EXPIRATION

At any time, parties to this Agreement may determine whether revisions or amendment to this Agreement are needed. If parties to this Agreement determine that revisions or amendments are needed, the parties will consult in accordance with 36 CFR Part 800.4 through 800.6 to consider such amendment.

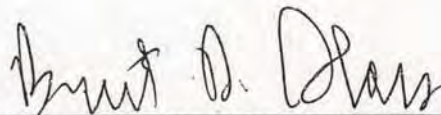
If the terms of this agreement cannot be carried out, the agreement shall be amended or terminated, in accordance with 36 CFR Part 800.6(c)(8).

In the event that the NPS does not carry out the terms of this Agreement, the NPS will comply with 36 CFR Part 800.4 through 800.6 with regard to individual undertakings that otherwise would be covered by the terms and provisions of this Memorandum of Agreement.

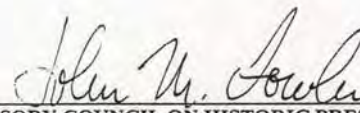
Execution and implementation of this Memorandum of Agreement evidences that the NPS has provided the Council with an opportunity to comment, and has satisfied its Section 106 responsibilities for these undertakings, with the exception of the visitor center/museum complex as described in Stipulation #5.

BY:   
GETTYSBURG NATIONAL MILITARY PARK  
NATIONAL PARK SERVICE

Date: 7/16/99

BY:   
PENNSYLVANIA STATE HISTORIC PRESERVATION OFFICER

Date: 7/29/99

BY:   
ADVISORY COUNCIL ON HISTORIC PRESERVATION

Date: 7/29/99

## **APPENDIX C: CLR TREATMENT PLAN**

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## Chapter 4: Treatment Plan



## Overview

The treatment of the Defense of Cemetery Hill site will be a crucial component of the rehabilitation of Gettysburg National Military Park in accordance with the GMP. The Treatment Plan that follows was selected from among three alternatives considering the mission of the park as well as the need for modern amenities. The approach reflects the GMP recommendation that the significance for the site is the Battle Era (July 1 - 3, 1863). While Commemorative Era features are also considered historic, they are not of primary significance. The overall approach rehabilitates as many Battle Era features as possible so that the park may more closely represent the character of the landscape encountered by soldiers during the Battle of Gettysburg in 1863 (see Map 21: Treatment Plan).

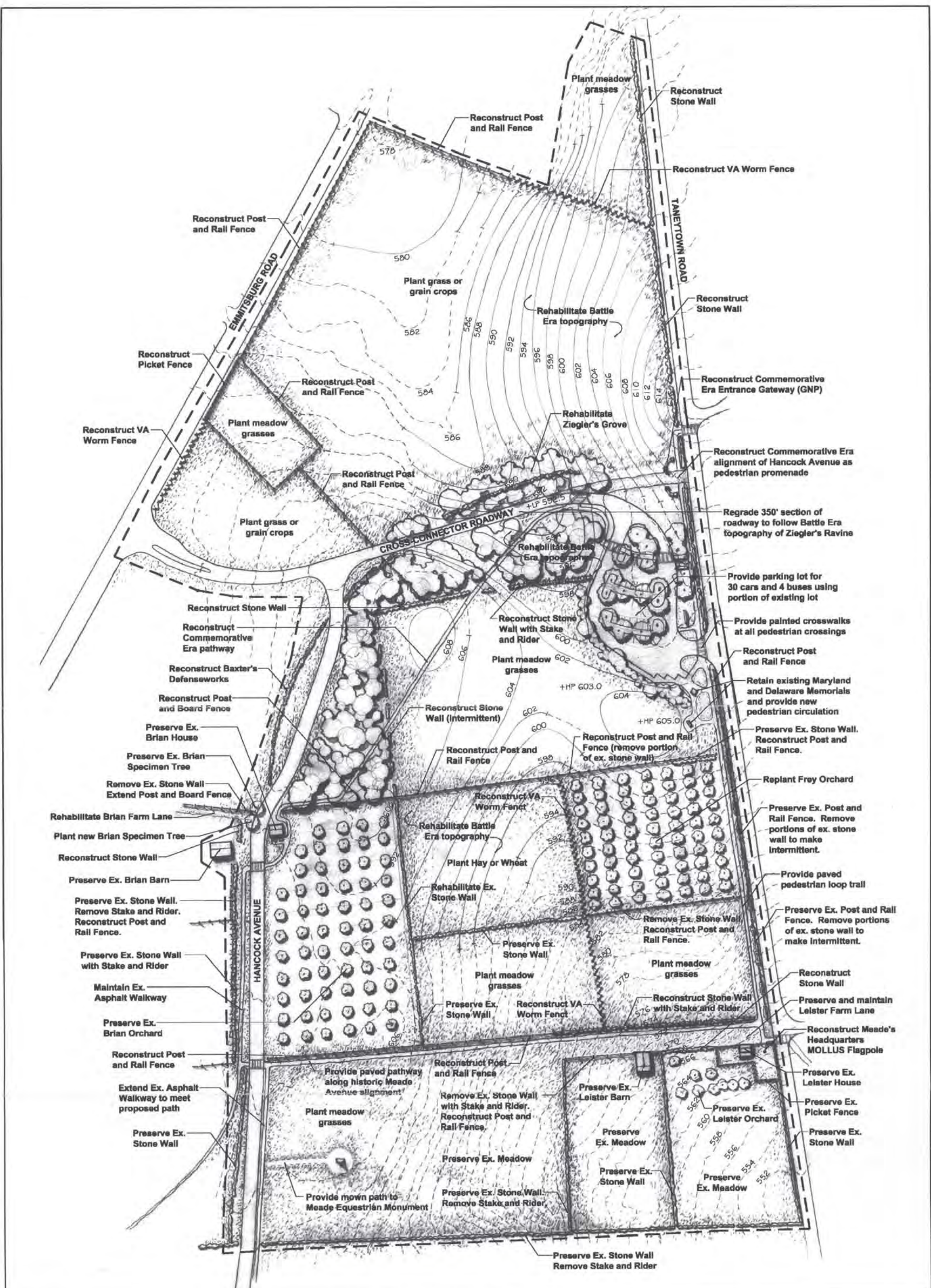
Planning parameters for the site were clearly established and contained in the GMP. These guided the development of the Treatment Plan and include the following:

- The existing Visitor Center and Cyclorama Center buildings and their associated parking lots will be removed, as stated in the GMP.<sup>1</sup>
- There will be limited parking provided in the vicinity of this rehabilitated area, in accordance with the GMP.<sup>2</sup>
- The parking should be of the same limited size and scope as that needed in other high traffic areas of the park. Spaces for four buses and thirty cars are considered by NPS to be reasonable.
- There should be no new construction of elements that were not part of the Battle or Commemorative Eras.
- There will continue to be a paved vehicular connector between Taneytown Road and Emmitsburg Road.
- Existing curb cuts will be used for access to Taneytown Road and Emmitsburg Road.

The Treatment Plan includes the program elements above, required by the GMP. Additional treatment recommendations for the site address vehicular circulation, pedestrian circulation, and rehabilitation of historic features. The following approach has been taken regarding treatment of historic features:

- All existing Battle Era features will be preserved.
- When funding permits, missing Battle Era features will be reconstructed to the fullest extent possible within the framework of the proposed vehicular circulation and parking previously described.
- Existing Commemorative Era features, primarily monuments, will also be preserved, but missing Commemorative Era features will not be restored to the site until further formal evaluation of these features has been made.





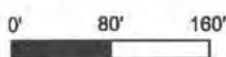
MAP 21

Study Area Boundary



GETTYSBURG NATIONAL MILITARY PARK  
Defense of Cemetery Hill - Phase 1

TREATMENT PLAN



- Picket Fence
- Post and Rail Fence
- Post and Board Fence
- Stone Wall with Stake and Rider
- Stone Wall
- Virginia Worm Fence
- Existing Contour Line
- Proposed Contour Line





## Circulation

Much of the existing vehicular circulation system will remain in its current alignment and condition. The cross-connector between Taneytown Road and Emmitsburg Road will follow the existing Cyclorama entrance road alignment, entering and exiting the site at the location of current curb cuts. Constituting perhaps the most striking change at the site, this road will be regraded as it passes through Ziegler's Ravine, to reveal the ravine topography of the Battle Era. The Visitor Center access road will be completely removed, allowing for partial rehabilitation of much of Ziegler's North Field. Hancock Avenue will remain in its current Commemorative Era location, running one-way south to north. Historically Hancock Avenue turned eastward to connect to Taneytown Road, and the cross-connector roadway still follows part of this alignment. However, the historic alignment's connection to Taneytown Road and the grand gate that served as a park entry during the Commemorative Era are currently missing. Both of these features will be rehabilitated, with the road segment to be used as a broad pedestrian promenade connecting the site to the National Cemetery. A small parking lot will be provided for thirty cars and four buses (with two accessible spaces), located south of the cross-connector road. This lot uses part of the existing Cyclorama parking lot, with portions of its paving and parking space layout, eliminating the need for any new paving construction other than transitions to the regraded section of roadway. This lot will serve visitors to this portion of the battlefield as well as the adjacent Soldiers' National Cemetery.

The proposed pedestrian circulation differs quite dramatically from the existing system. Paved walkways will be reduced in number, while still providing a loop trail system for visitors exploring the site on foot.

### Circulation - General Recommendations:

- Do not add any new vehicular circulation to the site.
- Remove all non-historic pedestrian circulation except that remaining on Treatment Plan.
- Provide a minimal level of new pedestrian circulation in the form of a paved pedestrian loop trail, using historic road, lane, and path alignments to the greatest extent possible.
- New asphalt paths should be porous asphalt, wherever possible.

### Circulation - Specific Recommendations:

#### Vehicular Circulation

- Remove existing Visitor Center Entrance Road and associated parking lot, and remove existing curb cuts.
- Maintain existing Cyclorama Entrance Road as vehicular cross-connection between Emmitsburg Road and Taneytown Road, and maintain existing curb cuts.

- Regrade section of cross-connector roadway to reflect the Battle Era topography. Speed limits should be set at 20-25mph.
- Remove approximately one-half of existing Cyclorama parking lot (west side), while maintaining the other half (east side) as parking for thirty cars and four buses.
- Maintain existing Hancock Avenue.
- Provide painted crosswalks at all pedestrian crossings.

#### Pedestrian Circulation

- Maintain existing asphalt walkway west of Hancock Avenue, crossing to the east side of the road at the Brian Farm.
- Provide paved path following the historic alignment of the Commemorative Era pathway through Ziegler's Grove and Ziegler's Large Meadow. Recommended material: asphalt.
- Provide pedestrian path following the historic alignment and width of Hancock Avenue where it intersected with Taneytown Road. Reconstruct Commemorative Era (GNP) gate (See Walls & Fences - Specific Recommendations).
- Provide paved asphalt path parallel to Taneytown Road from the crosswalk at the Soldier's National Cemetery to the crosswalk near the Leister Farm. Path should be located on the west side of all walls and fences, separating it from Taneytown Road. Pavement markings provide a crosswalk across Taneytown Road to the Fantasyland site.
- Maintain existing asphalt path running east-west along the Commemorative Era alignment of Meade Avenue. Remove existing asphalt path where it diverges from this alignment and provide new asphalt path continuing west along historic alignment of Meade Avenue until it reaches Hancock Avenue.
- Extend existing asphalt path along east side of Hancock Avenue to intersect with proposed path following Meade Avenue alignment.

#### Emmitsburg Road (Battle Era Feature #10)

- Maintain current width and alignment of existing roadway.

#### Taneytown Road (Battle Era Feature #26)

- Maintain current width and alignment of existing roadway.

#### Leister Farm Lane (Battle Era Feature #75)

- Preserve and maintain existing Leister Farm Lane alignment. Retain in current condition until further research can be conducted to determine the historic limits of this lane. Then rehabilitate the lane to achieve the appearance of a farm field access route.

#### Brian Farm Lane (Battle Era Feature #15)

- Preserve and maintain existing Brian Farm Lane alignment. Remove existing lawn and rehabilitate the lane to achieve the appearance of a farm field

access route, consistent with its use by one subsistence farmer. Because it will not be serving equestrian or vehicular uses, this lane should be rehabilitated to its historic look of a working farm lane (somewhat unkempt with tall grasses, ruts, etc.).

## Topography & Drainage

One of the crucial aspects to be addressed in creating an understandable Battle Era landscape at Cemetery Hill is the restoration of historic topography. Though it is not possible to regrade the site completely to recreate the terrain exactly as it was at the time of the battle, it is necessary to rehabilitate key areas that have been changed the most dramatically over time, so that these areas of terrain can be interpreted effectively. A large percentage of the site still closely resembles the Battle Era topography, and these areas will be preserved in their current state. Grading is recommended at Ziegler's Ravine, in the vicinity of the current Cyclorama parking lot, and Cemetery Ridge, in the vicinity of the Cyclorama Center building. The site of the current Visitor Center will also require regrading when the building is removed, but in general the slope direction and general surface grades in this area are similar to the Battle Era conditions of the south slope of Cemetery Hill. When the building and parking area are removed, minor adjustments to the terrain in this area will result in a close resemblance to the historic topographic conditions.

In the area of Ziegler's Ravine, the current grades are the most significantly different from those that existed historically. The construction of the Cyclorama entrance road and the Cyclorama parking lot created areas of fill approximately five feet deep that have obscured the terrain of the Battle Era. The location of the Cyclorama entrance road will remain the same as part of the required vehicular cross-connection, but approximately half the area of the existing parking lot will be removed, allowing for restoration of significant areas of topography in this area. Slightly further to the south it will also be possible to partially restore the terrain of the historic "saddle" area. The roadway itself will also be substantially regraded to reflect the historic ravine area, a change in grade of about four feet. Another area where significant grade changes are proposed is along Cemetery Ridge in the area surrounding the current Cyclorama Building. When this building is removed the grades around the footprint of the building, as well as the areas just to the north and east of the building, will be rehabilitated to the fullest extent possible to match the historic terrain of Cemetery Ridge. These grading changes will be a primary method of rehabilitating and revealing the terrain of the Battle Era.

### Topography & Drainage - General Recommendations:

- Preserve and maintain all existing topography that retains its historic grades.
- In large areas where existing features are being removed and grades disturbed, rehabilitate the historic topography as much as physically possible.

**Topography & Drainage - Specific Recommendations:**

See proposed grading shown on Treatment Plan for more details.

South Slope, Cemetery Hill (Battle Era Feature #35)

- Rehabilitate historic grades of the south slope of Cemetery Hill in the vicinity of the existing Visitor Center building and parking lot. The grade should slope away from Taneytown Road at a slope of about 7%.

Cemetery Ridge (Battle Era Feature #34)

- Rehabilitate historic grades of Cemetery Ridge in the vicinity of the existing Cyclorama Center building.

Ziegler's Ravine (Battle Era Feature #2)

- Partially rehabilitate historic grades of Ziegler's Ravine in the western half of the existing Cyclorama parking lot, north of the cross-connector road, and along the alignment of the cross-connector roadway itself.

Leister Spring (Battle Era Feature #74)

- Preserve and maintain existing spring in southeast corner of Leister Pasture. Maintain grades surrounding the spring so that the drainage of this area will not be altered.

## Vegetation

The vegetation of the site has changed significantly over time. Dramatic action is required in order to restore it to its historic condition. In accordance with the GMP and the NPS Treatment Philosophy, all existing non-historic vegetation will be removed. This includes tree screens such as those located along Emmitsburg Road and along the northern boundary of the site. In areas where vegetation existed in that particular location historically, the stand of vegetation will remain, even if species are not consistent with historic record. In the proposed parking lot, existing shade trees will remain to aid in screening and softening the appearance of the parking and to provide shade for vehicles. As far as presently known, none of the vegetation currently on the site dates to the Battle Era. Thus, all of the vegetation, both existing and proposed, will be representative of what existed at the time of the battle and will not be an exact replication.

One of the most significant areas of vegetation to be rehabilitated is Ziegler's Grove. While a grove of trees does currently exist in the general location, the boundaries are ill-defined and the species make-up of the grove is different from its Battle Era condition. For the treatment of this area, the accurate limits of the grove will be reestablished, and the species diversity and density will be altered to more closely reflect a forest grove likely to have been encountered by soldiers during the battle. The exact species found in the grove are unknown, but it is known that non-native ornamentals would not have

existed in this area. However, it is possible to interpret what would have grown there at the time based on what was known to be typically found in surrounding woodlots. While the vegetation of the grove would have been slightly more dense than it is today, it is also clear from historic sketches that the grove remained open below, allowing for the movement of troops. Historically there also was a lane opening through the grove, connecting Ziegler's North Field to Ziegler's Large Meadow. This lane will be rehabilitated to its historic location and appearance as shown in 1863 photographs.

Other areas of special landscape character in the battle landscape were the Brian, Frey, and Leister orchards. The Brian Orchard still exists with very similar limits, composition, and density to what was present historically and will continue to be preserved as such. The Frey Orchard is completely missing and will be replanted. As seen in historic photographs, there were approximately seven rows of fruit trees planted east-west and ten rows planted north-south within the boundaries of the Frey Orchard plot. The exact species that was grown in the orchard is unknown, but a representative fruit tree, such as apple, will be used to create the orchard character of the landscape. Like the Brian Orchard, the Leister Orchard also remains in a similar state to its battle era condition and will continue to be preserved.

The remaining vegetation on the site is the groundcover layer - crops that were grown in the fields, and grasses found in the pastures and meadows. This is one of the most challenging areas of treatment, since most of the exact species grown in these areas are unknown. Generally, all the fields, meadows, and pastures on the site will be replanted to represent the overall character of the agricultural landscape present in 1863. It is known that one of the Frey-owned fields consisted of hay or wheat, but other crops cultivated in these fields are unknown. Therefore, fields will be planted with representative grass or grain crops. Meadows and pastures will be planted with typical meadow grasses used elsewhere in the park. The meadows and crop fields will eventually be placed in the CREP (Conservation Reserve Enhancement Program) and mown as 'Class C', or once per year. The commemorative areas within the project area will continue to be maintained as 'Class A', mown as often as necessary to maintain a grass height of 2 ½ - 3". These areas include the Meade Equestrian Monument, all of Ziegler's Grove, and the corridor on both sides of Hancock Avenue, including the monument groupings and artillery batteries.

### **Vegetation - General Recommendations:**

- Remove existing vegetation in any areas where vegetation did not occur at the time of the battle (except at proposed parking lot).
- Use species native to the region for all new tree and shrub plantings.
- Identify any potential witness trees and core, age, and preserve those that date to the Battle Era.

**Vegetation - Specific Recommendations:**

See proposed plantings shown on Treatment Plan for more details.

Parking Area

- Where possible, preserve existing trees in the parking islands to remain.
- Preserve the four existing trees east of the parking area bordering the proposed pedestrian path.
- Plant new trees in parking islands where needed to provide shade for vehicles.
- Plant a vegetative screen on the south side of the parking area. Type and height of vegetation to be determined during design phase of project.

Ziegler's Grove (Battle Era Feature #1)

- Preserve the deciduous character of the grove and any existing trees of native species that are found within the historic limits of the grove.
- Rehabilitate the historic limits of the grove by removing any vegetation outside the historic limits and planting new vegetation in areas where none currently exists.
- Rehabilitate the composition and density of the grove to include large mature shade trees while maintaining the open character of the understory layer.
- Rehabilitate the historic lane opening through the grove between Ziegler's North Field and Ziegler's Large Meadow.
- Maintain groundcover layer as 'Class A' mown lawn.
- Control and eliminate any invasive exotic vegetation.

Brian Orchard (Battle Era Feature #12)

- Preserve and maintain this existing orchard.
- Remove select individual trees at the south end of the orchard that extend beyond the post and rail fence defining the historic limits of this area.

Brian Grape Arbor (Battle Era Feature #60)

- Reconstruct this missing feature.
- Replant grapevine on arbor and locate in its historic location south of the Brian House (see historic photographs). Foliage should be allowed to droop over arbor, concealing views between the Brian House and Barn.

Brian Specimen Trees (Battle Era Feature #59)

- Preserve one existing tree at head of Brian Farm Lane.
- Do not restore the missing tree since its historic location is unknown.

Frey Orchard (Battle Era Feature #22)

- Replant this missing orchard.
- Replant orchard with disease-resistant apple trees, with seven rows running east-west and 10 rows running north-south as seen in historic photograph.



Leister Orchard (Battle Era Feature #73)

- Preserve and maintain this existing orchard.

Ziegler's North Field (Battle Era Feature #5)

- Remove existing non-historic tree screens on western and northern boundaries of this area.
- Rehabilitate the historic field size and appearance through the installation of missing fencelines and vegetation (including parcel located north of the Ziegler-Bishop Virginia Worm Fence).
- Plant field with grass or grain crops and maintain its agricultural use through the NPS CREP program.

Ziegler's South Field (Battle Era Feature #6)

- Rehabilitate the historic field size and appearance through the installation of missing fencelines and vegetation (field extends beyond study area).
- Plant field with grass or grain crops and maintain its agricultural use through the NPS CREP program.
- Protect potential archeological resources associated with the Ziegler Clay Pits and Kiln.

Ziegler Yards (Battle Era Feature #4) [GETT #FN03, IDLCS #81254]<sup>3</sup>

- Rehabilitate the historic size and appearance of this homestead site through the installation of fencelines and vegetation.
- Plant meadow grasses and mow periodically to maintain yard appearance.
- Locate interpretive signage within the yard area to indicate the historic presence of the Ziegler House and Barn.
- Protect potential archeological resources associated with the former farm buildings.

Ziegler's Large Meadow (Battle Era Feature #21)

- Rehabilitate the historic field size and appearance through the installation of fencelines and vegetation. This meadow can only be partially rehabilitated due to the location of the proposed parking lot.
- Plant meadow grasses and maintain meadow appearance.

Frey Hay-Wheatfield (Battle Era Feature #23)

- Rehabilitate the historic field size and appearance through the installation of missing fencelines and vegetation.
- Plant hay or wheat to reflect historic crops planted here and maintain its agricultural use through the NPS CREP program.

Frey Small Meadow (West) (Battle Era Feature #24)

- Rehabilitate the historic field size and appearance through the installation of fencelines and vegetation.

- Plant meadow grasses and maintain meadow appearance.

#### Frey Small Meadow (East) (Battle Era Feature #25)

- Rehabilitate the historic field size and appearance through the installation of fencelines and vegetation.
- Plant meadow grasses and maintain meadow appearance.

#### Leister Large Field (Battle Era Feature #47)

- Rehabilitate the historic field size and appearance through the installation of missing fencelines and vegetation.
- Preserve existing meadow on the eastern side of this field.
- Maintain existing lawn on the western side of this field, from Hancock Avenue to the Meade Equestrian Monument. The dividing line runs from Batteries F & K, 3rd U.S. Artillery Tablet (Turnbull's Battery), south to the 114th Pennsylvania Infantry Monument. West of this line the field should be mown as Class 'A', and east of this line it should be maintained as Class 'C' meadow.

#### Leister Small Field (Battle Era Feature #46)

- Preserve and maintain existing meadow.

#### Leister Pasture (Battle Era Feature #45)

- Preserve and maintain existing meadow.

#### Leister Yards (Battle Era Feature #44)

- Preserve and maintain existing yards surrounding the Leister House.

## Views

Much of the treatment for the restoration of historic views is related to treatment of site vegetation. As the vegetation treatment recommendations listed above are implemented, historic views will also be reestablished. The site today lacks its historically open character, significantly reducing the number of views representative of the time of the battle. Long vistas continue to exist from Cemetery Ridge. However, vistas across the site that would have been seen by soldiers from their positions on Cemetery Hill have been compromised dramatically. In order to reestablish the views from this key Union position, significant amounts of existing vegetation as well as existing structures and parking must be removed to recreate the open agricultural fields that existed during the Battle Era. Although the views from Cemetery Hill will be somewhat compromised by the retention of a portion of the existing Cyclorama parking lot, the majority of the long vistas observed from this location will be revealed.

In addition to the area around Cemetery Hill, the views from Cemetery Ridge must also be addressed. The existing long vistas to the south and west of the ridge will be pre-

served through maintaining the open character of the surrounding fields. Views to the east will be restored through the reestablishment of the field sizes, fencelines, and vegetative cover. With the removal of the Cyclorama Center building, the northernmost portion of the ridge will be regraded to the land form of the Battle Era, allowing crucial views both to and from the ridge to be restored.

### **Views - General Recommendations:**

- Rehabilitate historic views and fields of fire within the site through the removal of non-historic vegetation and the restoration of the open character of the land.

### **Views - Specific Recommendations:**

- Preserve and maintain existing panoramic views from Cemetery Ridge to the west and south.
- Rehabilitate views from Cemetery Hill into the site through the removal of non-historic vegetation along Emmitsburg Road, the restoration of the historic limits of Ziegler's Grove, and the removal of the Visitor Center building, Visitor Center parking lot, Cyclorama Center building, and a portion of the Cyclorama Center parking lot.

## **Structures**

The types of structures present on the site both historically and today include buildings, fences and walls, and monuments. While several Battle Era buildings still exist within the study area, there are also two large modern buildings that presently dominate the site, the Visitor Center and Cyclorama buildings. Both of these buildings will be removed, in accordance with the GMP and the Memorandum of Agreement with the Advisory Council regarding the demolition of the Cyclorama Building. These structures will be replaced by the new Visitor Center Complex located between Taneytown Road and Baltimore Pike. With the removal of these non-historic structures, only the battle-era buildings of the Brian and Leister Farms will remain. This will allow the landscape to be more fully restored to its Battle Era character, and to be much more easily interpreted. Both the Brian House and Barn and Leister House and Barn retain much of their historic integrity and will be preserved and maintained in their Battle Era appearance. No buildings remain from the historic Ziegler Farm, and there are no plans or photographs that reveal the original locations or appearance of this house and barn. In accordance with similar situations elsewhere in the park, these structures will not be reconstructed. Instead, the area of the farm will be defined by yard fencing and interpretive signage will be placed within the area so that visitors may understand the site as a former farmstead.

One of the most significant components of site treatment is the reconstruction of missing historic fences and walls that defined the Battle Era fields and were an integral part of this formerly agricultural landscape. Not only were these structures integral to creating the special character of the 1863 landscape, but also many of them had material influences on the outcome of the battle. Some historic walls and fences, especially in the southern portion of the site, remain, and these will be preserved and maintained in their Battle Era appearance. Others among them retain their historic alignment, but their appearance has been altered over time. These fencelines will be rehabilitated to reflect their original Battle Era configuration and material. The majority of the historic fencelines, however, are currently missing. All of these walls and fences will be reconstructed, to the fullest extent known and possible, to reflect their Battle Era locations and appearance. In areas where visitors pass near fences and walls, care will be taken to design the sizes and proportions in such a manner that park users are safe from any protruding fence elements. While the presence of the proposed cross-connector roadway and the remaining portion of the Cyclorama parking lot preclude the full reconstruction of all of the fencelines, the majority of these features can be reestablished. A few breaks in the fencelines are proposed in order to accommodate the modern needs of vehicular roadways and pedestrian crossings. The existing retaining wall along the Cyclorama parking lot will be removed and the area regraded, so that a retaining wall is no longer necessary. The Treatment Plan also calls for the reconstruction of Baxter's Defenseworks along its historic alignment, with interpretive signage to explain the evolving nature and use of this feature during the battle. Two breaks in the wall will be required in order for Hancock Avenue and the cross-connector roadway to pass between wall segments. The wall will be brought as close to the curb line as possible at these points so that its previous long continuous arc can be perceived. In addition, Ziegler's Grove and Meadow Stone Wall, which was used during the battle to construct Baxter's Defenseworks, will be represented in a partially dismantled state, reconstructed so that it continues to convey its pre-battle function as a field boundary between Ziegler's Grove and Ziegler's Large Meadow.

Many Commemorative Era monuments exist on the site. In general, all these historic monuments will be preserved and maintained so that they can be interpreted by park visitors. Some of these monuments require attention to improve their condition and integrity. Under the Treatment Plan, any missing components of these monuments or battery guns and carriages will be replaced, and any broken features repaired. One missing commemorative era monument, the Meade's Headquarters MOLLUS flagpole, will be restored to the site. Several existing monuments have been relocated over time. With the removal of a portion of the Cyclorama parking lot, most monuments can be restored to their original locations. These monuments will be removed and stored by the park during the parking lot removal and regrading operations, and then reset in their historic locations.

**Structures - General Recommendations:**

- Preserve and maintain all existing historic structures.
- Remove all existing non-historic structures from the site.
- Do not construct any new non-historic structures on the site.
- Preserve and maintain existing historic buildings as a representation of their Battle Era appearance.
- Reconstruct all missing walls and fencelines present prior to the battle, in order to reflect the landscape encountered by soldiers during the battle.
- Reconstruct all missing walls and fencelines in their historic style so that their qualities of cover and concealment and as obstacles can be interpreted.
- Preserve and maintain or rehabilitate all existing historic walls and fencelines to reflect their Battle Era appearance.
- Preserve and maintain all existing historic monuments.
- Preserve and maintain all existing battery guns and carriages.
- Rehabilitate all monuments with missing components or broken, aging features to their Commemorative Era configuration.
- Apply appropriate maintenance and agricultural practices to protect monuments from future damage.

**Buildings - Specific Recommendations:**Visitor Center

- Remove existing Visitor Center building (new Visitor Center complex to be built between Taneytown Road and Baltimore Pike).

Cyclorama Center

- Remove existing Cyclorama Center building (Cyclorama painting to be moved to new Visitor Center complex to be built between Taneytown Road and Baltimore Pike).

Brian House (Battle Era Feature #14) [GETT #022, IDLCS #04456]

- Preserve and maintain existing house structure as a representation of this Battle Era house.

Brian Barn (Battle Era Feature #13) [GETT #020, IDLCS #04464]

- Preserve and maintain existing barn structure as a representation of this Battle Era barn.

Leister House (Battle Era Feature #43) [GETT #0073, IDLCS #00457]

- Preserve and maintain existing house structure as a representation of this Battle Era house.

Leister Barn (Battle Era Feature #42) [GETT #074, IDLCS #00458]

- Preserve and maintain existing barn structure as a representation of this Battle Era barn.

**Walls & Fences - Specific Recommendations:**Hancock Avenue Entrance Gateway (Commemorative Era Feature #74)

- Reconstruct missing Commemorative Era stone gateway and flanking curved walls at historic intersection of Hancock Avenue and Taneytown Road.
- Reconstruct gateway to reflect its appearance as constructed in 1923, using as much of the original material from NPS storage as possible.

Ziegler-Emmitsburg Road Virginia Worm Fence (Battle Era Feature #52)

- Reconstruct missing Virginia Worm fence along historic alignment.
- Continue fencing all the way to intersection of Emmitsburg Road and the vehicular cross-connector and then continue fencing on the south side of the entrance for a minimum of fifty feet.

Ziegler Yard Fences (Battle Era Feature #4)

- Reconstruct missing post and rail fence surrounding the former site of the Ziegler house and barn.
- Reconstruct picket fence in the section fronting on Emmitsburg Road.

Ziegler-Emmitsburg Road Post and Rail Fence (Battle Era Feature #53)

- Reconstruct missing post and rail fence along historic alignment.

Ziegler-Bishop Post and Rail Fence (Battle Era Feature #78)

- Reconstruct missing post and rail fence along historic alignment.

Ziegler-Bishop Virginia Worm Fence (Battle Era Feature #79)

- Reconstruct missing Virginia Worm Fence along historic alignment.

Taneytown Road Stone Wall (Ziegler Farm) (Battle Era Feature #30)

- Reconstruct missing stone wall along historic alignment.
- Allow for small break in wall at pedestrian crossing to Soldier's National Cemetery.

Ziegler Post and Rail Fence (Battle Era Feature #33)

- Reconstruct missing post and rail fence along historic alignment.
- Allow for break in fence where it meets the cross-connector roadway, while bringing fence as close to the curb line as possible.

Baxter's Defenseworks (Battle Era Feature #9)

- Reconstruct missing defenseworks along historic alignment, as it appeared in photographs and maps made following the battle.
- Allow for break in defenseworks where it crosses Hancock Avenue and the cross-connector roadway, while bringing it as close to the curb lines as possible.
- Erect signage similar to that created by the War Department at Little Round Top and Vincent Spur to indicate the evolving nature and use of the breastworks throughout the battle.

Ziegler's Grove and Meadow Stone Wall (Battle Era Feature #61)

- Partially reconstruct missing stone wall along historic alignment.
- Place segments of stone wall intermittently along this historic alignment to communicate that parts of this wall were removed in order to build Baxter's Defenseworks, while still providing enough wall so that the field boundary can be identified.
- Erect signage similar to that created by the War Department at Little Round Top and Vincent Spur to indicate the evolving nature and use of this wall throughout the battle.

Ziegler's Stone Wall, South Boundary (Battle Era Feature #7)

- Reconstruct missing stone wall and stone wall with stake and rider along historic alignment.
- Reconstruct stone wall on western side, allowing for break in wall where it intersects the proposed Commemorative Era path.
- Allow for small historic break in wall just east of Commemorative Era path.
- Reconstruct stone wall with stake and rider on eastern side (after historic break), ending at the parking area.

Taneytown Road Post and Rail Fence (Battle Era Feature #62)

- Remove any existing stone wall along this alignment.
- Reconstruct missing post and rail fence along historic alignment.

Brian Farm Lane Post and Board Fence (Battle Era Feature #16) [GETT #FN45, IDLCS #81429]

- Preserve and maintain existing post and board fence.
- Remove existing stone wall at end of existing fence and extend post and board fence along historic alignment to existing specimen tree.

Brian-Ziegler Post and Board Fence (Battle Era Feature #70)

- Reconstruct missing post and board fence along historic alignment.
- Conduct further research to verify the 1863 appearance of this fence before constructing as recommended above.

Ziegler Large Meadow Post and Rail Fence (Battle Era Feature #68)

- Remove portion of existing stone wall on eastern side of this historic alignment.
- Reconstruct missing post and rail fence along historic alignment.

Frey Orchard Post and Rail and Stone Fence (Battle Era Feature #66)  
[GETT #WA46, IDLCS #81010]

- Preserve and maintain existing stone wall along historic alignment.
- Reconstruct missing post and rail fence behind wall, following historic alignment. Post and rail fence should continue along same alignment as the Ziegler Large Meadow Post and Rail Fence.
- Conduct further research to verify the 1863 appearance of this fence/wall before constructing as recommended above.

Brian Stone Wall with Post and Rail Fence (Battle Era Feature #17)

- Preserve existing stone wall along historic alignment.
- Remove existing stake and rider added to wall.
- Reconstruct post and rail fence on the west side of the existing stone wall.
- Reconstruct stone wall from north side of Brian Barn to south side of Brian Farm Lane.

Brian Stone Wall with Stake and Rider (Battle Era Feature #18)

- Preserve and maintain existing stone wall with stake and rider along historic alignment.

Brian-Leister Post and Rail Fence (Battle Era Feature #65)

- Reconstruct missing post and rail fence along historic alignment.

Brian Stone Wall - Eastern Boundary (Battle Era Feature #19)

- Rehabilitate existing stone wall along historic alignment. This wall may be disturbed during demolition of the Cyclorama Center. Reconstruct any missing portions of wall and rehabilitate disturbed areas.

Frey Hay or Wheatfield Stone Wall (Battle Era Feature #67)

- Preserve and maintain existing stone wall along historic alignment.

Frey-Leister Post and Rail Fence (Battle Era Feature #64)

- Reconstruct missing post and rail fence along historic alignment.

Frey Orchard Virginia Worm Fence (Battle Era Feature #77)

- Reconstruct missing Virginia worm fence along historic alignment.

Frey Small Meadows Virginia Worm Fence (Battle Era Feature #76)

- Reconstruct missing Virginia worm fence along historic alignment.



Frey Orchard Post and Rail Fence (Battle Era Feature #66)

- Remove existing stone wall.
- Reconstruct post and rail fence along historic alignment.

Frey-Leister Stone Wall with Stake and Rider (Battle Era Feature #63)

- Reconstruct missing stone wall with rider along historic alignment.

Taneytown Road Stone Wall with Post and Rail Fence (Frey Orchard)  
(Battle Era Feature #29)

- Preserve and maintain existing post and rail fence along historic alignment.
- Remove portions of existing stone wall so that it is intermittent rather than continuous.

Taneytown Road Stone Wall with Post and Rail Fence (Frey Small  
Meadows - East) (Battle Era Feature #28)

- Preserve existing post and rail fence.
- Remove portions of existing stone wall so that it is intermittent rather than continuous.

Leister-Arnold's Battery Stone Wall (Battle Era Feature #39)

- Preserve and maintain existing stone wall along historic alignment.

Leister South Boundary Stone Wall (Battle Era Feature #71)  
[GETT #WA81, IDLCS #81255]

- Preserve and maintain existing stone wall along historic alignment.
- Remove existing stake and rider added to wall.

Leister Fields Boundary Wall (Battle Era Feature #40)

- Preserve and maintain existing stone wall along historic alignment.
- Remove existing stake and rider added to wall.

Leister Farm Lane Post and Rail Fence (Battle Era Feature #72)

For section of wall west of the Leister Barn:

- Remove existing stone wall with stake and rider.
- Reconstruct post and rail fence along historic alignment.

For section of wall east of the Leister Barn and west of the Leister House:

- Preserve existing stone wall.
- Remove existing stake and rider added to wall.

Leister Pasture Boundary Wall (Battle Era Feature #41)

- Preserve and maintain existing stone wall along historic alignment.

Leister Yard Fences (Battle Era Feature #44) [GETT #FN03, IDLCS #81254]

- Preserve and maintain all existing picket fencing and slit palings surrounding the Leister House.

Taneytown Road Stone Wall (Leister Pasture) (Battle Era Feature #27)

- Preserve and maintain existing stone wall along historic alignment.

**Monuments - Specific Recommendations:**

(Further condition assessments may be required for more specific condition-related recommendations)

136th New York Infantry Monument (Commemorative Era Feature #3)

[GETT #MN827-B, IDLCS #09693]

- Protect monument during demolition and regrading of Visitor Center parking lot.

136th New York Infantry Left Flank Marker (Commemorative Era Feature #4)

[GETT #MN827-B, IDLCS #09693]

- Protect marker during demolition and regrading of Visitor Center parking lot.

90th Pennsylvania Infantry Right Flank Marker (Commemorative Era Feature #5)

[GETT #MN206C, IDLCS #09727]

- Uncover this partially buried Commemorative Era marker.
- Reset marker as close to original location as possible after regrading operations in the Ziegler's Ravine area are complete.

12th Massachusetts Infantry Position Marker (Commemorative Era Feature #7)

[GETT #MN008-D, IDLCS #09817]

- Remove and store or otherwise protect this monument during removal of western portion of parking lot and regrading operations, and then reset in its historic location.

88th Pennsylvania Infantry Position Marker (Commemorative Era Feature #8)

[GETT #MN9E IDLCS #09725]

- Remove and store or otherwise protect this monument during removal of western portion of parking lot and regrading operations, and then reset existing marker and boulder on which it rests to historic location in the north-western corner of the current Cyclorama parking lot.

1st Massachusetts Sharpshooters Position Marker (Commemorative Era Feature #9)

[GETT #MN218-A, IDLCS #09829]

- Remove and store or otherwise protect this monument during removal of

western portion of parking lot and regrading operations, and then reset in its historic location, south of where it exists today.

Battery G, 2nd US Artillery Tablet (Butler's Battery) (Commemorative Era Feature #18) [GETT # MN669-A, IDLCS #81266]

- Remove and store or otherwise protect this monument during removal of western portion of parking lot and regrading operations, and then reset in its historic location.
- Add a reproduction of a cannon carriage and replica 12-pounder Napoleon to complete the Battery G, 2<sup>nd</sup> US Artillery monument group.

Battery F, 5th US Artillery Tablet (Martin's Battery) (Commemorative Era Feature #19) [GETT #MN685-B, IDLCS #80553]

- Remove and store or otherwise protect this monument during removal of Cyclorama building and regrading operations, and then reset in its historic location in the area of the current Cyclorama building.

Hancock Avenue War Department ID Tablet (Commemorative Era Feature #22) [GETT #ID18, IDLCS #81170]

- Relocate existing marker to original location along alignment of Hancock Avenue gateway at intersection of Taneytown Road.

Meade's Headquarters MOLLUS Flagpole (Commemorative Era Feature #81) [GETT # MN811, IDLCS #81150]

- Reconstruct this Commemorative Era feature in its original location in the Leister yards.

Grand Army of the Republic (GAR) Memorial, Albert Woolson Statue [GETT # MN212, IDLCS #09948]

- Remove existing plaza surrounding this memorial.

Maryland State Monument [GETT #MN830, IDLCS #82138]

- Protect this monument during removal of western portion of parking lot and regrading operations.
- Provide paved pedestrian access to the monument.

Delaware State Monument [GETT #MN832, IDLCS #228979]

- Protect this monument during removal of western portion of parking lot and regrading operations.
- Remove stone wall behind existing monument, but retain existing plaza surrounding the monument.
- Provide paved pedestrian access to the monument.

## Utilities

Utilities will be adjusted and capped off as required during removal of buildings and roadways. Specific treatment of utilities will be developed during detailed design of various site restoration efforts.

## Conclusion

Today, it is virtually impossible for visitors to Gettysburg National Military Park to develop even a vague understanding of the 1863 landscape of Cemetery Hill and Cemetery Ridge.

With implementation of the Treatment Plan for the Defense of Cemetery Hill, the many existing layers of today's setting will be gradually peeled away. Ultimately, the battle setting with its rolling, sometimes wooded, sometimes open landscape, criss-crossed by a web of fences and walls, will be clearly revealed.

When the work is complete, visitors will be able to experience the scene described by Col. John Bachelder in 1873:

*"No person can stand on Cemetery Hill, and from its commanding summit survey the field on which the Army of the Potomac and the Army of Northern Virginia met to decide the fate of human liberty, without being impressed with the remarkable beauty of the landscape view, and its peculiar fitness for a great battlefield."*<sup>4</sup>

## **APPENDIX D: COST ESTIMATE REPORT**

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# **Cyclorama Building**

## **Gettysburg National Military Park**

**Environmental Assessment Cost Alternatives – 100% Submission**

**NPS Project No. GETT 166934A; GWWO Project No. 1044**



**Prepared by GWWO, Inc./Architects**

**March 8, 2011**

# **Gettysburg Cyclorama Environmental Assessment Cost Alternatives**

## **Gettysburg National Military Park**

Cost Alternatives Report  
100% Submission

NPS Project No. GETT 166934A  
GWWO Project No. 1044



Prepared by:  
GWWO, Inc. / Architects  
March 8, 2011



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## **EXECUTIVE SUMMARY**

The National Park Service (NPS) has prepared an Environmental Assessment (EA) for the Cyclorama Building at Gettysburg National Military Park (GNMP). The EA describes alternatives for the future of the Cyclorama building and proposes that one of these alternatives be implemented. The NPS has hired the services of GWWO Inc./Architects to estimate the cost of these alternatives and submit a Environmental Assessment Cost Alternatives report. Included in this report is a description of each alternative, its associated scope, and a corresponding Class C cost estimate.

Below is a brief description of the alternatives:

- Alternative 1: Mothball the Cyclorama Building for an indefinite amount of time to prevent further deterioration.
- Alternative 2A: Restore the exterior and immediate grounds of the Cyclorama Building.
- Alternative 2B: Restore the exterior and immediate grounds and renovate the interior of the Cyclorama Building and rehabilitate the interior for a use to be determined later.
- Alternative 3A: Relocate the Cyclorama Building to Site 1 located within the Visitor and Park Services Overlay Area in the GNMP, restore the exterior and landscape, and renovate the interior for a use to be determined later.
- Alternative 3B: Relocate the Cyclorama Building Site 2 located within the Visitor and Park Services Overlay Area in the GNMP, restore the exterior and landscape, and renovate the interior for a use to be determined later.
- Alternative 4A: Partially demolish the Cyclorama Building, leaving a remnant as a memorial. Restore the landscape to the 1863 condition.
- Alternative 4B: Fully demolish the Cyclorama Building and restore the landscape to the 1863 condition.

GWWO Inc. and its consultants conducted a site visit on January 18th, 2011 to perform a condition assessment of the building, surrounding landscape, and potential relocation sites. Representatives visiting the site were: Eric Feiss, GWWO Inc.; John Gregg, GWWO Inc.; Tim Hogan, VHB Inc.; Atul Patel, Faisant Associates, Inc. and Marc Pratt, National Park Service. There was a second site visit on February 3rd to perform a condition assessment of the current mechanical, plumbing, and electrical systems. Representatives visiting the site were: Scott Haythorn, Henry Adams, LLC and Jeanne Tebera, Henry Adams, LLC.

GWWO Inc. consulted with an experienced building mover, Jason Ayers of Ayers House Movers, in order to evaluate the relocation alternatives 3A, 3B, and 3C. Mr. Ayers' report is included in Appendix A. It describes the challenges associated with relocating a building of this size. We offer this report in order for the Park to best understand the entire process that would be involved with relocating the Cyclorama building.

GWWO Inc. and its consultants are pleased to present this Environmental Cost Alternative Report. The cost information contained herein has been derived from multiple sources, including but not limited to: published cost indexes, cost information from comparable projects, estimates and bids from construction subcontractors. This report has been executed to best of our professional capabilities and represents our estimated probable costs for the stated alternatives.

## **Summary of Class C Cost Alternatives**

**Project:** Gettysburg Cyclorama Environmental Assessment Cost Alternatives

**Park:** Gettysburg National Military Park

**PMIS:** GETT 166934A

<b>Alternative</b>	<b>Soft Costs</b>	<b>Construction Costs</b>	<b>Total</b>
1: Mothballing	\$170,287	\$1,702,874	\$1,873,161
2A: Exterior Restoration	\$567,814	\$3,678,139	\$4,245,952
2B - Museum: Exterior Restoration & Interior Renovation	\$2,123,292	\$19,232,924	\$21,356,217
2B - Office: Exterior Restoration & Interior Renovation	\$1,028,452	\$8,284,524	\$9,312,977
3A - Museum: Relocation Site 1	\$2,736,074	\$31,325,920	\$34,061,994
3A - Office: Relocation Site 1	\$1,860,202	\$20,377,520	\$22,237,722
3B - Museum: Relocation Site 2	\$2,947,185	\$33,964,817	\$36,912,002
3B - Office: Relocation Site 2	\$2,071,313	\$23,016,417	\$25,087,731
3C - Museum: Undetermined Relocation Site	\$3,534,592	\$41,307,396	\$44,841,988
4A: Partial Demolition	\$737,086	\$5,370,860	\$6,107,946
4B: Full Demolition	\$160,973	\$3,219,454	\$3,380,427

## **ALTERNATIVE 1 - MOTHBALL THE CYCLORAMA BUILDING**

### **SUMMARY**

This alternative proposes mothballing the cyclorama building. The goal of mothballing is to essentially place the building in storage until another action is undertaken. The length of time the building would be mothballed is undetermined. During this time the building would be unoccupied and closed to the public. The building would remain accessible to personnel responsible for maintenance and periodic inspection.

The mothballing process would follow the methods outlined in the Department of the Interior's Preservation Brief #31 "Mothballing Historic Buildings," by Sharon C. Park, AIA. Below is an outline of the general scope of work associated with this alternative.

### **Inclusions**

- Prepare a Condition Assessment Report.
- Consultant design fees.
- Demolish existing parking lot and construct new parking lot.
- Exterminate and control pests.
- Perform exterior building envelope repairs as needed to keep building watertight.
- Cover exterior glass windows and doors with plywood to protect against breakage, vandalism and to secure the interior of the building.
- Install natural ventilation louvers in building envelope.
- Demolish existing fire and security detection systems and install new alarms with notification to be located at NPS offices.
- Evaluate the building's structural integrity and provide temporary structural bracing if structure is unstable.
- Clean debris from interior, roof, and exterior. Remove excess vegetation from exterior.
- Shut off or disconnect appropriate utilities and drain all water pipes.
- Prepare and execute a monitoring and maintenance plan to protect the building.
- Interpretive signs and materials.

### **Exclusions**

- Historic preservation of building interior and exterior.
- Permanent structural repair.
- Repair of mechanical systems. Building will not have any heat or air conditioning.
- Hazardous materials abatement.
- Restoration of site to 1863 conditions.

## **Class C Construction Cost Estimate**

**Project:** Gettysburg Cyclorama Environmental Assessment Cost Alternatives

**Park:** Gettysburg National Military Park

**PMIS:** GETT 166934A

### **Basis of Estimate**

Alternative 1: Mothball the Cyclorama Building

Date of Estimate: 03/08/11

Estimated By: GWWO Inc./Architects  
800 Wyman Park Drive, Suite 300  
Baltimore, MD 21211  
(410) 332-1009

Supporting Material: Draft of Cyclorama Building Implementation Plan/Environmental Assessment  
Historic American Building Survey (HABS) drawings and data sheets

Cost Data: RS Means 2011 Cost Data  
McGraw Hill 2011 Cost Data  
GWWO comparative project cost data

Mark-ups and Add-ons: Published Location Factor: RS Means (York, Pennsylvania).  
Project Remoteness: Site is in an urban location.  
Federal Wage Rate Factor: 6 Percent Guidance from NPS.  
Design Contingency: 30 percent.  
Standard General Conditions: 10 percent.  
Government General Conditions: 10 percent.  
Bonds and Permits: 1.5 percent bond included in General Conditions. No permit costs.  
Historic Preservation Factor: 5 percent.  
Overhead: 10 percent.  
Profit: 10 percent.  
Contracting Method Adjustment: Expected contract to be full open bid with a 5% premium.  
Inflation Escalation: No inflation adjustment.

Alternative 1: Mothball the Cyclorama Building This alternative proposes mothballing the cyclorama building. The goal of mothballing would be to essentially place the building in storage until another action is undertaken. The length of time the building would be mothballed is undetermined. During this time the building would be unoccupied and closed to the public. The building would remain accessible to personnel responsible for maintenance and periodic inspection.

## Environmental Assessment Cost Alternatives

**Date:** 03/08/11

Item No.	Description	Quantity	Unit	Cost/Unit	Total
	Pest Control and Extermination	1	LS	\$5,000	\$5,000
	Exterior Concrete Repairs - 10% of shell surface area	2,100	SF	\$20	\$42,000
	Exterior Roof Repairs - 5% of roof area	1,010	SF	\$4	\$4,040
	Cover windows with plywood	4,100	SF	\$3	\$12,300
	Install ventilation louvers	30	EA	\$350	\$10,500
	Install Fire Detection System	26,700	BGSF	\$2	\$53,400
	Install Intrusion Detection System	26,700	BGSF	\$1	\$26,700
	Debris removal and cleaning	26,700	BGSF	\$1	\$26,700
	Allowance for Interpretive Materials	1	LS	\$15,000	\$15,000
	Install Lightning Protection System	1	LS	\$16,500	\$16,500
	Partial Site Restoration	1	LS	\$560,000.00	\$560,000
	Old Site - New Parking Lot	61	CAR	\$1,200	\$73,200
	<b>Subtotal Direct Construction Costs</b>				<b>\$845,340</b>
	Published Location Factor	-6.0%			-\$50,720
	Remoteness Factor	0.0%			\$0
	Federal Wage Rate Factor	6.0%			\$32,968
	Design Contingency	30.0%			\$253,602
	<b>Total Direct Construction Costs</b>				<b>\$1,081,190</b>
	Standard General Conditions	10.0%			\$108,119
	Government General Conditions	10.0%			\$108,119
	Historic Preservation Factor	5.0%			\$54,059
	<b>Subtotal NET Construction Cost</b>				<b>\$1,351,487</b>
	Overhead	10.0%			\$135,149
	Profit	10.0%			\$135,149
	<b>Estimated NET Construction Cost</b>				<b>\$1,621,785</b>
	Contracting Method Adjustment	5.0%			\$81,089
	Inflation Escalation	0.0%			\$0
	<b>Total Estimated NET Cost of Construction</b>				<b>\$1,702,874</b>
	Design Fees	10.0%			\$170,287
	<b>Estimated NET Soft Costs</b>				<b>\$170,287</b>

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**ALTERNATIVE 2A - RESTORE THE CYCLORAMA BUILDING:**  
*Building Exterior and Immediate Grounds*

**SUMMARY**

This alternative proposes exterior restoration of the Cyclorama building. Under this alternative the exterior of the building would be restored to its original condition with the exception of the water features and moving walls. The interior of the building would be closed to the public; accessible only to necessary maintenance and inspection personnel. The exterior of the building would be interpreted by wayside exhibits. The landscape immediately surrounding the building would be restored to Neutra's original design.

The restoration would be performed per the Department of the Interior's guidelines in order to bring the building back to its original state. Below is an outline of the general scope of work associated with this alternative.

**Inclusions**

- Historic Structures Report fees.
- Consultant design fees.
- Hazardous materials abatement.
- Exterminate and control pests.
- Clean debris from interior, roof, and exterior.
- Restore the exterior concrete facade, including recoating the drum with white silica concrete as originally specified by Neutra.
- Evaluate the building's structural integrity and remediate if required.
- Restore fieldstone walls and piers.
- Perform any repairs to the roof, roof drains, and soffits required to keep building watertight.
- Restore exterior windows, doors, louvers, and other architectural features.
- Repaint any exterior painted elements with historically accurate colors.
- Interpretive signs and materials.
- Demolish existing fire and security alarm systems and install new alarms with notification to be located at NPS offices.
- Heating, ventilation, and cooling systems will be replaced and operate at a minimal level to maintain proper ventilation, prevent water pipes from freezing, and preserve interior finishes.

**Exclusions**

- Renovation of building interior and mechanical systems.
- Demolish existing parking lot and construct new parking lot.



## **Class C Construction Cost Estimate**

**Project:** Gettysburg Cyclorama Environmental Assessment Cost Alternatives

**Park:** Gettysburg National Military Park

**PMIS:** GETT 166934A

### **Basis of Estimate**

Alternative 2A: Restore the exterior of the Cyclorama Building  
and immediate grounds.

Date of Estimate: 03/08/11

Estimated By: GWWO Inc./Architects  
800 Wyman Park Drive, Suite 300  
Baltimore, MD 21211  
(410) 332-1009

Supporting Material: Draft of Cyclorama Building Implementation Plan/Environmental Assessment  
Historic American Building Survey (HABS) drawings and data sheets

Cost Data: RS Means 2011 Cost Data  
McGraw Hill 2011 Cost Data  
GWWO comparative project cost data

Mark-ups and Add-ons: Published Location Factor: RS Means (York, Pennsylvania).  
Project Remoteness: Site is in an urban location.  
Federal Wage Rate Factor: 6 Percent Guidance from NPS.  
Design Contingency: 30 percent.  
Standard General Conditions: 10 percent.  
Government General Conditions: 10 percent.  
Bonds and Permits: 1.5 percent bond included in General Conditions. No permit costs.  
Historic Preservation Factor: 5 percent.  
Overhead: 10 percent.  
Profit: 10 percent.  
Contracting Method Adjustment: Expected contract to be full open bid with a 5% premium.  
Inflation Escalation: No inflation adjustment.

Alternative 2A: Restore the exterior of the Cyclorama Building and immediate grounds. This alternative proposes exterior restoration of the Cyclorama building. Under this alternative the exterior of the building would be restored to its original condition with the exception of the water features and moving walls. The interior of the building would be closed to the public; accessible only to necessary maintenance and inspection personnel. The exterior of the building would be interpreted by wayside exhibits. The landscape immediately surrounding the building would be restored to Neutra's original design.

## Environmental Assessment Cost Alternatives

Reviewed By: JRG  
Date: 03/08/11

Item No.	Description	Quantity	Unit	Cost/Unit	Total
	Clean and repoint stone masonry	1	LS	\$50,000	\$50,000
	Restore exterior concrete	1	LS	\$120,000	\$120,000
	Scaffolding	1	LS	\$70,000	\$70,000
	Restore windows	1	LS	\$220,000	\$220,000
	Restore exterior metal components	1	LS	\$30,000	\$30,000
	Exterior Roof Repairs - 5% of roof area	1,000	SF	\$6	\$6,000
	Restore exterior architectural elements	1	LS	\$25,000	\$25,000
	Install Fire Detection System	26,700	BGSF	\$2	\$53,400
	Install Intrusion Detection System	26,700	BGSF	\$1	\$26,700
	HVAC System - Demo existing, install new	26,700	BGSF	\$24	\$640,800
	Interpretive Materials	1	LS	\$7,500	\$7,500
	Install Lightning Protection System	1	LS	\$16,500	\$16,500
	Partial Site Restoration	1	LS	\$560,000.00	\$560,000
	<b>Subtotal Direct Construction Costs</b>				<b>\$1,825,900</b>
	Published Location Factor	-6.0%			-\$109,554
	Remoteness Factor	0.0%			\$0
	Federal Wage Rate Factor	6.0%			\$71,210
	Design Contingency	30.0%			\$547,770
	<b>Total Direct Construction Costs</b>				<b>\$2,335,326</b>
	Standard General Conditions	10.0%			\$233,533
	Government General Conditions	10.0%			\$233,533
	Historic Preservation Factor	5.0%			\$116,766
	<b>Subtotal NET Construction Cost</b>				<b>\$2,919,158</b>
	Overhead	10.0%			\$291,916
	Profit	10.0%			\$291,916
	<b>Estimated NET Construction Cost</b>				<b>\$3,502,989</b>
	Contracting Method Adjustment	5.0%			\$175,149
	Inflation Escalation	0.0%			\$0
	<b>Total Estimated NET Cost of Construction</b>				<b>\$3,678,139</b>

	Design Fees	10.0%			\$367,814
	Historic Structures Report	1	LS	\$200,000	\$200,000

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**ALTERNATIVE 2B - RESTORE AND RENOVATE THE CYCLORAMA BUILDING:**  
*Building Exterior, Interior, and Immediate Grounds*

**SUMMARY**

This alternative proposes exterior and site restoration and interior renovation of the Cyclorama building on site. The exterior restoration will be performed as described in Alternative 2A. For the purposes of this estimate we selected two potential new uses and applied an estimated cost to each use. The first use is a museum. The second use is office space. The scope of the interior renovations depends on the programs associated with the new uses. In order to estimate the cost without specific knowledge of a building program we have used average dollar per square foot costs based on comparable projects. The exterior of the building would be interpreted by wayside exhibits. The landscape immediately surrounding the building would be restored to Neutra's original design.

Below is an outline of the general scope of work associated with this alternative.

**Inclusions**

- Historic Structures Report fees.
- Consultant design fees.
- Hazardous material abatement.
- Exterminate and control pests.
- Clean debris from interior, roof, and exterior. Remove excess vegetation from exterior.
- Restore the exterior concrete facade, including recoating the drum with white silica concrete as originally specified by Neutra.
- Evaluate the building's structural integrity and remediate if required.
- Restore fieldstone walls and piers.
- Modify interior partitions, stairs, and floor plates to conform to modern building codes and accessibility laws and as required by the new building use.
- Install new roof coverings.
- Restore exterior windows, doors, louvers, and other architectural features.
- Repaint any exterior painted elements with historically accurate colors.
- Repair and reuse existing finishes where new occupancy and use permits. Where existing finishes are inadequate for new use, demolish and install new finishes.
- Exhibits for museum option.
- Install new elevator.
- Install new automatic fire suppression system appropriate for new building use.
- Demolish existing fire and security alarm systems and install new alarms with notification to be located at NPS offices.
- Demolish existing HVAC and building control systems and install new systems compliant with building codes and appropriate for new building use.

**Exclusions**

- Demolish existing parking lot and construct new parking lot.
- Furniture restoration.

## **Class C Construction Cost Estimate**

**Project:** Gettysburg Cyclorama Environmental Assessment Cost Alternatives

**Park:** Gettysburg National Military Park

**PMIS:** GETT 166934A

### **Basis of Estimate**

Alternative 2B: Restore the exterior and immediate grounds  
and renovate the interior of the Cyclorama Building.

Date of Estimate: 03/08/11

Estimated By: GWWO Inc./Architects  
800 Wyman Park Drive, Suite 300  
Baltimore, MD 21211  
(410) 332-1009

Supporting Material: Draft of Cyclorama Building Implementation Plan/Environmental Assessment  
Historic American Building Survey (HABS) drawings and data sheets

Cost Data: RS Means 2011 Cost Data  
McGraw Hill 2011 Cost Data  
GWWO comparative project cost data

Mark-ups and Add-ons: Published Location Factor: RS Means (York, Pennsylvania).  
Project Remoteness: Site is in an urban location.  
Federal Wage Rate Factor: 6 Percent Guidance from NPS.  
Design Contingency: 30 percent.  
Standard General Conditions: 10 percent.  
Government General Conditions: 10 percent.  
Bonds and Permits: 1.5 percent bond included in General Conditions. No permit costs.  
Historic Preservation Factor: 5 percent.  
Overhead: 10 percent.  
Profit: 10 percent.  
Contracting Method Adjustment: Expected contract to be full open bid with a 5% premium.  
Inflation Escalation: No inflation adjustment.

Alternative 2B: Restore the exterior and immediate grounds and renovate the interior of the Cyclorama Building. This alternative proposes exterior and interior restoration of the Cyclorama building on site. The exterior restoration would be performed as described in Alternative 2A. For the purposes of this estimate we selected two potential new uses and applied an estimated cost to each use. The first use is a museum. The second use is office space. The scope of the interior renovations depends on the programs associated with the new uses. In order to estimate the cost without specific knowledge of a building program we have used average dollar per square foot costs based on comparable projects. The exterior of the building would be interpreted by wayside exhibits. The landscape immediately surrounding the building would be restored to Neutra's original design.

**Gettysburg National Military Park  
GETT 166934A Gettysburg Cyclorama Center**

**Environmental Assessment Cost Alternatives  
Alternative 2B**

**Project:** Gettysburg Cyclorama Environmental Assessment Cost Alternatives  
**Park:** Gettysburg National Military Park  
**PMIS:** GETT 166934A

**Estimate By:** EGF  
**Date:** 03/08/11

**Alternative 2B - Exterior Restoration and Interior Renovation: Museum Use**

**Reviewed By:** JRG  
**Date:** 03/08/11

**Estimate is based on 2011 costs**

Item No.	Description	Quantity	Unit	Cost/Unit	Total
	Partial Interior Demolition	26,700	BGSF	\$9	\$240,300
	Hazardous Material Abatement	1	LS	\$255,000	\$255,000
	Add new floor in drum	8,300	SF	\$12	\$99,600
	Clean and repoint stone masonry	1	LS	\$50,000	\$50,000
	Restore exterior concrete	1	LS	\$120,000	\$120,000
	Scaffolding	1	LS	\$70,000	\$70,000
	Restore windows	1	LS	\$220,000	\$220,000
	Restore exterior metal components	1	LS	\$30,000	\$30,000
	New Roof Covering	20,200	SF	\$6	\$121,200
	Restore exterior architectural elements	1	LS	\$25,000	\$25,000
	Interior partitions, ceilings, finishes	35,000	BGSF	\$20	\$700,000
	Elevator	1	EA	\$100,000	\$100,000
	Install Lightning Protection System	1	LS	\$16,500	\$16,500
	Install Fire Detection System	35,000	BGSF	\$2	\$70,000
	Install Intrusion Detection System	35,000	BGSF	\$2	\$70,000
	New Plumbing, Sprinklers, HVAC	35,000	BGSF	\$50	\$1,750,000
	New Electrical distribution, lighting, etc...	35,000	BGSF	\$30	\$1,050,000
	Exhibit Allowance	1	LS	\$4,000,000	\$4,000,000
	Partial Site Restoration	1	LS	\$560,000.00	\$560,000
	<b>Subtotal Direct Construction Costs</b>				<b>\$9,547,600</b>
	Published Location Factor	-6.0%			-\$572,856
	Remoteness Factor	0.0%			\$0
	Federal Wage Rate Factor	6.0%			\$372,356
	Design Contingency	30.0%			\$2,864,280
	<b>Total Direct Construction Costs</b>				<b>\$12,211,380</b>
	Standard General Conditions	10.0%			\$1,221,138
	Government General Conditions	10.0%			\$1,221,138
	Historic Preservation Factor	5.0%			\$610,569
	<b>Subtotal NET Construction Cost</b>				<b>\$15,264,226</b>
	Overhead	10.0%			\$1,526,423
	Profit	10.0%			\$1,526,423
	<b>Estimated NET Construction Cost</b>				<b>\$18,317,071</b>
	Contracting Method Adjustment	5.0%			\$915,854
	Inflation Escalation	0.0%			\$0
	<b>Total Estimated NET Cost of Construction</b>				<b>\$19,232,924</b>
	Design Fees	10.0%			\$1,923,292
	Historic Structures Report	1	LS	\$200,000	\$200,000

**Gettysburg National Military Park  
GETT 166934A Gettysburg Cyclorama Center**

**Environmental Assessment Cost Alternatives  
Alternative 2B**

**Project:** Gettysburg Cyclorama Environmental Assessment Cost Alternatives  
**Park:** Gettysburg National Military Park  
**PMIS:** GETT 166934A

**Estimate By:** EGF  
**Date:** 03/08/11

**Alternative 2B - Exterior Restoration and Interior Renovation: Office Use** **Reviewed By:** JRG  
**Date:** 03/08/11

**Estimate is based on 2011 costs**

Item No.	Description	Quantity	Unit	Cost/Unit	Total
	Partial Interior Demolition	26,700	BGSF	\$9	\$240,300
	Hazardous Material Abatement	1	LS	\$255,000	\$255,000
	Add new floor in drum	8,300	SF	\$12	\$99,600
	Clean and repoint stone masonry	1	LS	\$50,000	\$50,000
	Restore exterior concrete	1	LS	\$120,000	\$120,000
	Scaffolding	1	LS	\$70,000	\$70,000
	Restore windows	1	LS	\$220,000	\$220,000
	Restore exterior metal components	1	LS	\$30,000	\$30,000
	New Roof Covering	20,200	SF	\$6	\$121,200
	Restore exterior architectural elements	1	LS	\$25,000	\$25,000
	Interior partitions, ceilings, finishes	35,000	BGSF	\$15	\$525,000
	Elevator	1	EA	\$100,000	\$100,000
	Install Lightning Protection System	1	LS	\$16,500	\$16,500
	Install Fire Detection System	35,000	BGSF	\$2	\$70,000
	Install Intrusion Detection System	35,000	BGSF	\$1	\$35,000
	New Plumbing, Sprinklers, HVAC	35,000	BGSF	\$25	\$875,000
	New Electrical distribution, lighting, etc...	35,000	BGSF	\$20	\$700,000
	Partial Site Restoration	1	LS	\$560,000.00	\$560,000
	<b>Subtotal Direct Construction Costs</b>				<b>\$4,112,600</b>
	Published Location Factor	-6.0%			-\$246,756
	Remoteness Factor	0.0%			\$0
	Federal Wage Rate Factor	6.0%			\$160,391
	Design Contingency	30.0%			\$1,233,780
	<b>Total Direct Construction Costs</b>				<b>\$5,260,015</b>
	Standard General Conditions	10.0%			\$526,002
	Government General Conditions	10.0%			\$526,002
	Historic Preservation Factor	5.0%			\$263,001
	<b>Subtotal NET Construction Cost</b>				<b>\$6,575,019</b>
	Overhead	10.0%			\$657,502
	Profit	10.0%			\$657,502
	<b>Estimated NET Construction Cost</b>				<b>\$7,890,023</b>
	Contracting Method Adjustment	5.0%			\$394,501
	Inflation Escalation	0.0%			\$0
	<b>Total Estimated NET Cost of Construction</b>				<b>\$8,284,524</b>
	Design Fees	10.0%			\$828,452
	Historic Structures Report	1	LS	\$200,000	\$200,000



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**ALTERNATIVE 3A - RELOCATE, RESTORE, AND RENOVATE THE CYCLORAMA BUILDING:**  
*Relocate to Site 1, within the Gettysburg National Military Park*

**SUMMARY**

This alternative proposes moving the Cyclorama Building to Site 1 within the Visitor and Park Services Overlay Area in the Gettysburg National Military Park (GNMP). The site is located adjacent to the overflow visitor parking lot at the intersection of Hunt Avenue and Taneytown Road, see the map below. Once moved, the building would undergo an exterior restoration and interior renovation as described in Alternatives 2A and 2B. The building would be used for a new function that has yet to be determined. The new occupant may be either the NPS or a private lessee. For the purposes of this cost estimate the same building uses studied in Alternative 2B, a museum and office, are evaluated. After the building has been moved, the original site and area of the battlefield affected by the move route would be restored to the 1863 conditions and the cultural landscape would be interpreted.

The sites considered in this estimate were picked because they are the most feasible options within the park boundaries. An important advantage to these two sites is the fact that they are directly across Taneytown Road from the current Cyclorama location. The building would have to only cross the road, with Pennsylvania Department of Transportation (PDOT) permission, not travel along the road.

Due to the size and complexity of the existing Cyclorama building the relocation process would be very challenging and would involve multiple structural moving companies to carry out the work. First the building would be separated into two sections, the drum and the long wing. Both sections would then be lifted off their foundations, abandoning the ground floor slab and footings in place, and transported across the site to the new location. The transportation route would be graded and surfaced with steel plating to create a steady surface and distribute the weight evenly across the route. In the new location the building would be placed upon a new foundation and "reassembled" in place. From this point the exterior restoration and interior renovation work would begin.

Below is an outline of the general scope of work associated with this alternative.

**Inclusions**

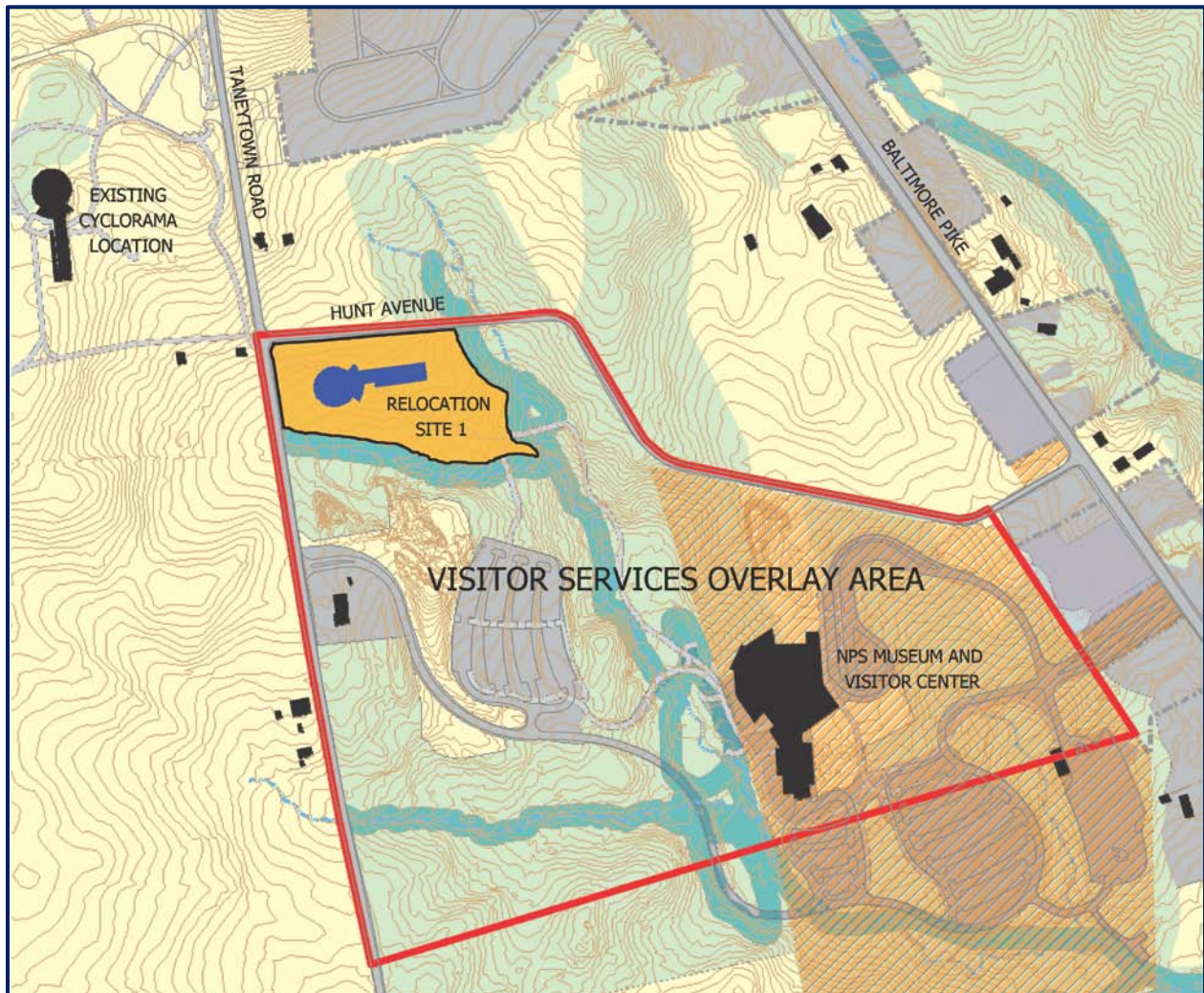
- Historic Structures Report fees.
- Consultant design fees.
- Hazardous material abatement.
- Demolish existing parking lot and construct new parking lot.
- Restore old Cyclorama Building site to 1863 conditions and interpret cultural landscape.
- Geotechnical and archeological services for the new site and move route.
- Relocate building to new site. This would include dismantling and reassembling the building on new foundations. Also included would be any work associated with surveying, modifying, and restoring the move route.
- Perform civil site work needed for the situation of the building on the new site. This includes, but isn't limited to, excavation, stormwater management, utilities, and grading.
- Construct new building foundations.
- Restore exterior concrete facade, including recoating the drum with white silica concrete as originally specified by Neutra.

- Evaluate the building's structural integrity and remediate if required.
- Restore fieldstone walls and piers.
- Modify interior partitions, stairs, and floor plates to conform to modern building codes and accessibility laws and as required by the new building use.
- Perform any repairs to the roof, roof drains, and soffits required to keep building watertight.
- Restore exterior windows, doors, louvers, and other architectural features.
- Repaint any exterior painted elements with historically accurate colors.
- Repair and reuse existing finishes where new occupancy and use permits. Where existing finishes are inadequate for new use, demolish and install new finishes.
- Interpretive signs and materials.
- Install new elevator.
- Install new automatic fire suppression system appropriate for new building use.
- Demolish existing fire and security alarm systems and install new alarms with notification to be located at NPS offices.
- Demolish existing HVAC and building control systems and install new systems compliant with building codes and appropriate for new building use.

**Exclusions**

- Furniture restoration.

RELOCATION SITE 1



## **Class C Construction Cost Estimate**

**Project:** Gettysburg Cyclorama Environmental Assessment Cost Alternatives

**Park:** Gettysburg National Military Park

**PMIS:** GETT 166934A

### **Basis of Estimate**

Alternative 3A: Relocate, restore, and renovate the Cyclorama Building to Site 1 within GNMP.

Date of Estimate: 03/08/11

Estimated By: GWWO Inc./Architects  
800 Wyman Park Drive, Suite 300  
Baltimore, MD 21211  
(410) 332-1009

Supporting Material: Draft of Cyclorama Building Implementation Plan/Environmental Assessment  
Historic American Building Survey (HABS) drawings and data sheets

Cost Data: RS Means 2011 Cost Data  
McGraw Hill 2011 Cost Data  
GWWO comparative project cost data

Mark-ups and Add-ons: Published Location Factor: RS Means (York, Pennsylvania).  
Project Remoteness: Site is in an urban location.  
Federal Wage Rate Factor: 6 Percent Guidance from NPS.  
Design Contingency: 30 percent.  
Standard General Conditions: 10 percent.  
Government General Conditions: 10 percent.  
Bonds and Permits: 1.5 percent bond included in General Conditions. No permit costs.  
Historic Preservation Factor: 5 percent.  
Overhead: 10 percent.  
Profit: 10 percent.  
Contracting Method Adjustment: Expected contract to be full open bid with a 5% premium.  
Inflation Escalation: No inflation adjustment.

Alternative 3A: This alternative proposes moving the Cyclorama Building to Site 1 within the Visitor and Park Services Overlay Area in the Gettysburg National Military Park (GNMP). The site is located adjacent to the overflow visitor parking lot at the intersection of Hunt Avenue and Taneytown Road, see the map below. Once moved the building would undergo an exterior restoration and interior renovation similar Alternatives 2A and 2B. The new use has yet to be determined. The new occupant may be either the NPS or a private lessee. For the purposes of this cost estimate the same building uses in studied in Alternative 2B, a museum and office, are evaluated. After the building has been moved, the old site would be restored to the 1863 conditions and the cultural landscape would be interpreted.

## Environmental Assessment Cost Alternatives

Reviewed By: JRG  
Date: 03/08/11

	Design Fees	8.0%			\$2,506,074
	Historic Structures Report	1	LS	\$200,000	\$200,000
	Geotechnical Services	1	LS	\$30,000	\$30,000

## Environmental Assessment Cost Alternatives

Reviewed By: JRG  
Date: 03/08/11

Item No.	Description	Quantity	Unit	Cost/Unit	Total
	Building Relocation	1	LS	\$2,900,000	\$2,900,000
	New Site Work	1	LS	\$2,000,000	\$2,000,000
	New Foundations and Footings	1	LS	\$200,000	\$200,000
	New Retaining Walls and Ground Floor Slab	1	LS	\$250,000	\$250,000
	Building Restoration (See Option 2B Office details)	1	LS	\$3,552,600	\$3,552,600
	Site Restoration to 1863 Conditions	1	LS	\$790,000.00	\$790,000
	Move Route Site Restoration	1	LS	\$350,000	\$350,000
	New Parking Lot at Old Cyclorama Site	61	CAR	\$1,200	\$73,200
	<b>Subtotal Direct Construction Costs</b>				<b>\$10,115,800</b>
	Published Location Factor	-6.0%			-\$606,948
	Remoteness Factor	0.0%			\$0
	Federal Wage Rate Factor	6.0%			\$394,516
	Design Contingency	30.0%			\$3,034,740
	<b>Total Direct Construction Costs</b>				<b>\$12,938,108</b>
	Standard General Conditions	10.0%			\$1,293,811
	Government General Conditions	10.0%			\$1,293,811
	Historic Preservation Factor	5.0%			\$646,905
	<b>Subtotal NET Construction Cost</b>				<b>\$16,172,635</b>
	Overhead	10.0%			\$1,617,264
	Profit	10.0%			\$1,617,264
	<b>Estimated NET Construction Cost</b>				<b>\$19,407,162</b>
	Contracting Method Adjustment	5.0%			\$970,358
	Inflation Escalation	0.0%			\$0
	<b>Total Estimated NET Cost of Construction</b>				<b>\$20,377,520</b>

	Design Fees	8.0%			\$1,630,202
	Historic Structures Report	1	LS	\$200,000	\$200,000
	Geotechnical Services	1	LS	\$30,000	\$30,000

**ALTERNATIVE 3B - RELOCATE, RESTORE, AND RENOVATE THE CYCLORAMA BUILDING:**  
*Relocate to Site 2, inside the Gettysburg National Military Park*

**SUMMARY**

This alternative proposes moving the Cyclorama Building to Site 2 within the Visitor and Park Services Overlay Area in the Gettysburg National Military Park (GNMP). The site is located east of the new Gettysburg Visitor Center south of the overflow parking lot, see the map below. Once moved the building would undergo an exterior restoration and interior renovation as described below. The building would be used for a new function that has yet to be determined. The new occupant may be either the NPS or a private lessee. For the purposes of this cost estimate the same building uses studied in Alternative 2B, a museum and office, are evaluated. After the building has been moved, the original site and area of the battlefield affected by the move route would be restored to the 1863 conditions and the cultural landscape would be interpreted.

The sites considered in this estimate were picked because they are the most feasible options within the park boundaries. An important advantage to these two sites is the fact that they are directly across Taneytown Road from the current Cyclorama location. The building would have to only cross the road, with Pennsylvania Department of Transportation (PDOT) permission, not travel along the road.

Due to the size and complexity of the existing Cyclorama building the relocation process would be very challenging and would involve multiple structural moving companies to carry out the work. First the building would be separated into two sections, the drum and the long wing. Both sections would then be lifted off their foundations, abandoning the ground floor slab and footings in place, and transported across the site to the new location. The transportation route would be graded and surfaced with steel plating to create a steady surface and distribute the weight evenly across the route. In the new location the building would be placed upon a new foundation and "reassembled" in place. From this point the exterior restoration and interior renovation work would begin.

Below is an outline of the general scope of work associated with this alternative.

**Inclusions**

- Historic Structures Report fees.
- Consultant design fees.
- Hazardous material abatement.
- Demolish existing parking lot and construct new parking lot.
- Restore old Cyclorama Building site to 1863 conditions and interpret cultural landscape.
- Geotechnical and archeological services for the new site.
- Relocate building to new site. This would include dismantling and reassembling the building on new foundations. Also included would be any work associated with surveying, modifying, and restoring the move route.
- Perform civil site work needed for the situation of the building on the new site. This includes, but isn't limited to, excavation, stormwater management, utilities, and grading.
- Construct new building foundations.
- Restore exterior concrete facade, including recoating the drum with white silica concrete as originally specified by Neutra.

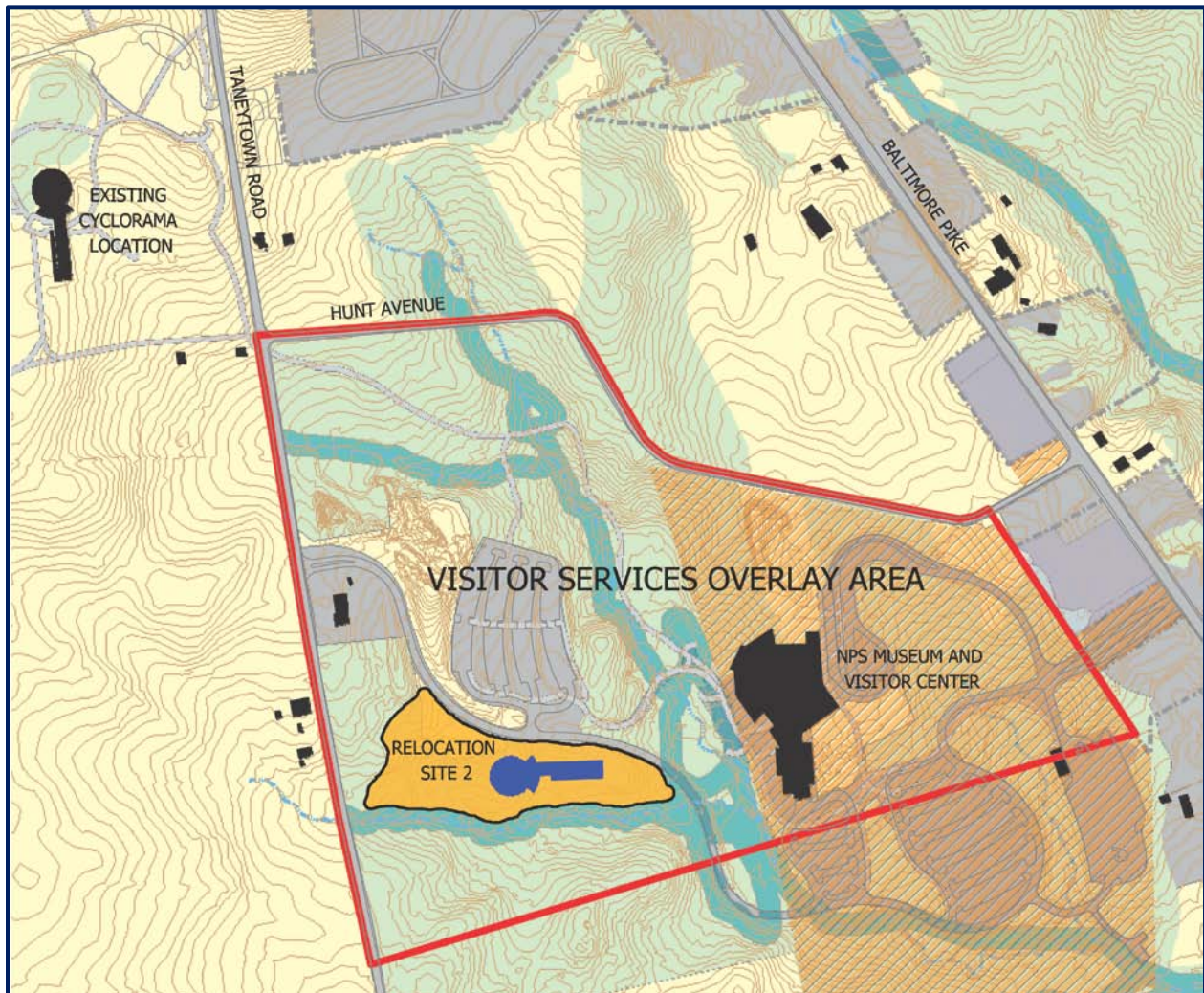


- Restore fieldstone walls and piers.
- Evaluate the building's structural integrity and remediate if required.
- Modify interior partitions, stairs, and floor plates to conform to modern building codes and accessibility laws and as required by the new building use.
- Perform any repairs to the roof, roof drains, and soffits required to keep building watertight.
- Restore exterior windows, doors, louvers, and other architectural features.
- Repaint any exterior painted elements with historically accurate colors.
- Repair and reuse existing finishes where new occupancy and use permits. Where existing finishes are inadequate for new use, demolish and install new finishes.
- Interpretive signs and materials.
- Install new elevator.
- Demolish and install new automatic fire suppression system appropriate for new building use.
- Demolish existing fire and security alarm systems and install new alarms with notification to be located at NPS offices.
- Demolish existing HVAC and building control systems and install new systems compliant with building codes and appropriate for new building use.

**Exclusions**

- Furniture restoration.

RELOCATION SITE 2



## **Class C Construction Cost Estimate**

**Project:** Gettysburg Cyclorama Environmental Assessment Cost Alternatives

**Park:** Gettysburg National Military Park

**PMIS:** GETT 166934A

### **Basis of Estimate**

Alternative 3B: Relocate, restore, and renovate the Cyclorama Building to Site 2 within GNMP.

Date of Estimate: 03/08/11

Estimated By: GWWO Inc./Architects  
800 Wyman Park Drive, Suite 300  
Baltimore, MD 21211  
(410) 332-1009

Supporting Material: Draft of Cyclorama Building Implementation Plan/Environmental Assessment  
Historic American Building Survey (HABS) drawings and data sheets

Cost Data: RS Means 2011 Cost Data  
McGraw Hill 2011 Cost Data  
GWWO comparative project cost data

Mark-ups and Add-ons: Published Location Factor: RS Means (York, Pennsylvania).  
Project Remoteness: Site is in an urban location.  
Federal Wage Rate Factor: 6 Percent Guidance from NPS.  
Design Contingency: 30 percent.  
Standard General Conditions: 10 percent.  
Government General Conditions: 10 percent.  
Bonds and Permits: 1.5 percent bond included in General Conditions. No permit costs.  
Historic Preservation Factor: 5 percent.  
Overhead: 10 percent.  
Profit: 10 percent.  
Contracting Method Adjustment: Expected contract to be full open bid with a 5% premium.  
Inflation Escalation: No inflation adjustment.

Alternative 3B: This alternative proposes moving the Cyclorama Building to Site 2 within the Visitor and Park Services Overlay Area in the Gettysburg National Military Park (GNMP). The site is located east of the new Gettysburg Visitor Center south of the overflow parking lot. Once moved the building would undergo an exterior restoration and interior renovation as described below. The new use that has yet to be determined. The new occupant may be either the NPS or a private lessee. For the purposes of this cost estimate the same building uses in studied in Alternative 2B, a museum and office, are evaluated. After the building has been moved, the old site would be restored to the 1863 conditions and the cultural landscape would be interpreted.

## Environmental Assessment Cost Alternatives

Reviewed By: JRG  
Date: 03/08/11

Item No.	Description	Quantity	Unit	Cost/Unit	Total
	Building Relocation	1	LS	\$3,300,000	\$3,300,000
	New Site Work	1	LS	\$2,520,000	\$2,520,000
	New Foundations and Footings	1	LS	\$240,000	\$240,000
	New Retaining Walls and Ground Floor Slab	1	LS	\$300,000	\$300,000
	Building Restoration (See Option 2B Museum details)	1	LS	\$8,987,600	\$8,987,600
	Site Restoration to 1863 Conditions	1	LS	\$790,000.00	\$790,000
	Move Route Site Restoration	1	LS	\$650,000	\$650,000
	New Parking Lot at Old Cyclorama Site	61	CAR	\$1,200	\$73,200
	<b>Subtotal Direct Construction Costs</b>				<b>\$16,860,800</b>
	Published Location Factor	-6.0%			-\$1,011,648
	Remoteness Factor	0.0%			\$0
	Federal Wage Rate Factor	6.0%			\$657,571
	Design Contingency	30.0%			\$5,058,240
	<b>Total Direct Construction Costs</b>				<b>\$21,564,963</b>
	Standard General Conditions	10.0%			\$2,156,496
	Government General Conditions	10.0%			\$2,156,496
	Historic Preservation Factor	5.0%			\$1,078,248
	<b>Subtotal NET Construction Cost</b>				<b>\$26,956,204</b>
	Overhead	10.0%			\$2,695,620
	Profit	10.0%			\$2,695,620
	<b>Estimated NET Construction Cost</b>				<b>\$32,347,445</b>
	Contracting Method Adjustment	5.0%			\$1,617,372
	Inflation Escalation	0.0%			\$0
	<b>Total Estimated NET Cost of Construction</b>				<b>\$33,964,817</b>

	Design Fees	8.0%			\$2,717,185
	Historic Structures Report	1	LS	\$200,000	\$200,000
	Geotechnical Services	1	LS	\$30,000	\$30,000

## Environmental Assessment Cost Alternatives

Reviewed By: JRG  
Date: 03/08/11

Item No.	Description	Quantity	Unit	Cost/Unit	Total
	Building Relocation	1	LS	\$3,300,000	\$3,300,000
	New Site Work	1	LS	\$2,520,000	\$2,520,000
	New Foundations and Footings	1	LS	\$240,000	\$240,000
	New Retaining Walls and Ground Floor Slab	1	LS	\$300,000	\$300,000
	Building Restoration (See Option 2B Office details)	1	LS	\$3,552,600	\$3,552,600
	Site Restoration to 1863 Conditions	1	LS	\$790,000.00	\$790,000
	Move Route Site Restoration	1	LS	\$650,000	\$650,000
	New Parking Lot at Old Cyclorama Site	61	CAR	\$1,200	\$73,200
	<b>Subtotal Direct Construction Costs</b>				<b>\$11,425,800</b>
	Published Location Factor	-6.0%			-\$685,548
	Remoteness Factor	0.0%			\$0
	Federal Wage Rate Factor	6.0%			\$445,606
	Design Contingency	30.0%			\$3,427,740
	<b>Total Direct Construction Costs</b>				<b>\$14,613,598</b>
	Standard General Conditions	10.0%			\$1,461,360
	Government General Conditions	10.0%			\$1,461,360
	Historic Preservation Factor	5.0%			\$730,680
	<b>Subtotal NET Construction Cost</b>				<b>\$18,266,998</b>
	Overhead	10.0%			\$1,826,700
	Profit	10.0%			\$1,826,700
	<b>Estimated NET Construction Cost</b>				<b>\$21,920,397</b>
	Contracting Method Adjustment	5.0%			\$1,096,020
	Inflation Escalation	0.0%			\$0
	<b>Total Estimated NET Cost of Construction</b>				<b>\$23,016,417</b>

	Design Fees	8.0%			\$1,841,313
	Historic Structures Report	1	LS	\$200,000	\$200,000
	Geotechnical Services	1	LS	\$30,000	\$30,000

**ALTERNATIVE 3C - RELOCATE, RESTORE, AND RENOVATE THE CYCLORAMA BUILDING:**  
*Relocate to an undetermined site, outside the Gettysburg National Military Park*

**SUMMARY**

This alternative proposes moving the Cyclorama Building to an undetermined site outside the Gettysburg National Military Park (GNMP). The building is bound on the east by PA-134 and on the west by US-15, both two-lane roads, therefore in order to move the building to any location outside the GNMP it must be sectioned into pieces small enough to travel these roads. The wing is narrow enough that it would be sectioned into two or three pieces, depending on the actual route, and moved. The drum would need to be deconstructed and sectioned into units that would fit on a flatbed tractor-trailer. Once moved, the building would be reassembled and then undergo exterior restoration and interior renovation. Wherever possible, the original fabric and character defining features would be kept intact.

For the purposes of this cost estimate it is assumed that the new use would be a museum as in Alternative 3A. After the building has been moved, the original site and area of the battlefield affected by the move route would be restored to the 1863 conditions and the cultural landscape would be interpreted.

In order to estimate the transportation cost, it is assumed that the site would be within an 8 hour drive from the current site (roughly a 300 mile trip with a heavy or oversized load, see attached illustration). RS Cost Means estimates the transportation crew on a daily basis. Therefore any distance less than an 8 hour drive may not result in significant savings since the crew is charging for an entire day.

Due to the indefinite nature of this alternative we have increased the design contingency from 30%, as we used on other alternatives, to 50%.

Below is an outline of the general scope of work associated with this alternative.

**Inclusions**

- Historic Structures Report fees.
- Consultant design fees.
- Hazardous material abatement.
- Demolish existing parking lot and construct new parking lot.
- Restore old Cyclorama Building site to 1863 conditions and interpret cultural landscape.
- Geotechnical and archeological services for the new site.
- Relocate building to new site. This includes dismantling and reassembling the building on new foundations. This also includes be any work associated with surveying, modifying, and restoring the move route.
- Perform civil site work needed for the situation of the building on the new site. This includes, but isn't limited to, excavation, stormwater management, utilities, and grading.
- Construct new building foundations.
- Rebuild and restore exterior concrete facade, including recoating the drum with white silica concrete as originally specified by Neutra.
- Rebuild and restore fieldstone walls and piers.

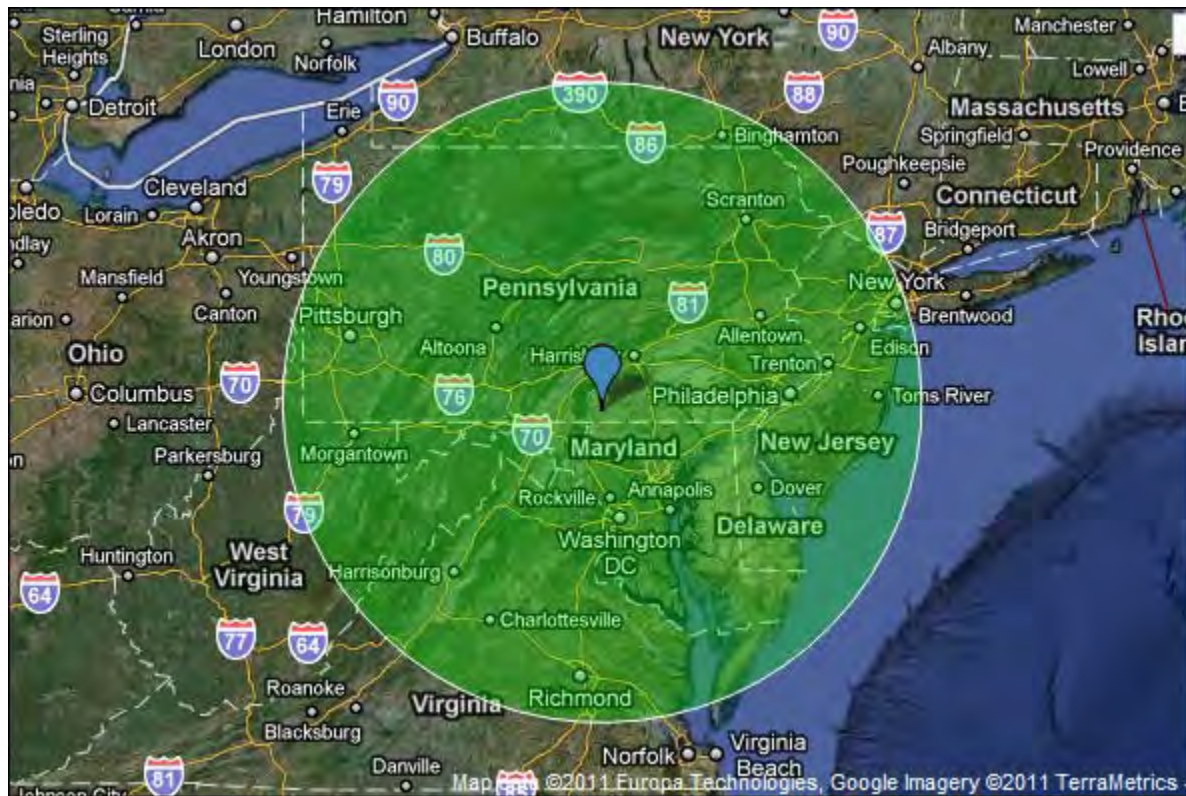
- Rebuild interior partitions, stairs, and floor plates to conform to modern building codes and accessibility laws and as required by the new building use.
- Deconstruct, move, and rebuild steel roof of drum and install new roof over drum and wing.
- Rebuild and restore exterior windows, doors, louvers, and other architectural features.
- Repaint any exterior painted elements with historically accurate colors.
- Reinstall original finishes where new occupancy and use permits. Where existing finishes are inadequate for new use, demolish and install new finishes.
- Interpretive signs and materials.
- Install new elevator.
- Demolish and install new automatic fire suppression system appropriate for new building use.
- Demolish existing fire and security alarm systems and install new alarms with notification to be located at NPS offices.
- Demolish existing HVAC and building control systems and install new systems compliant with building codes and appropriate for new building use.

**Exclusions**

- Furniture restoration.



**8-HOUR DRIVE RADIUS AROUND GETTYSBURG, PA**





## **Class C Construction Cost Estimate**

**Project:** Gettysburg Cyclorama Environmental Assessment Cost Alternatives

**Park:** Gettysburg National Military Park

**PMIS:** GETT 166934A

### **Basis of Estimate**

Alternative 3C: Relocate, Restore, & Renovate Cyclorama at Undetermined Site

Date of Estimate: 03/08/11

Estimated By: GWWO Inc./Architects  
800 Wyman Park Drive, Suite 300  
Baltimore, MD 21211  
(410) 332-1009

Supporting Material: Draft of Cyclorama Building Implementation Plan/Environmental Assessment  
Historic American Building Survey (HABS) drawings and data sheets

Cost Data: RS Means 2011 Cost Data  
McGraw Hill 2011 Cost Data  
GWWO comparative project cost data

Mark-ups and Add-ons: Published Location Factor: RS Means (York, Pennsylvania).  
Project Remoteness: Site is in an urban location.  
Federal Wage Rate Factor: 6 Percent Guidance from NPS.  
Design Contingency: 50 percent  
Standard General Conditions: 10 percent.  
Government General Conditions: 10 percent.  
Bonds and Permits: 1.5 percent bond included in General Conditions. No permit costs.  
Historic Preservation Factor: 5 percent.  
Overhead: 10 percent.  
Profit: 10 percent.  
Contracting Method Adjustment: Expected contract to be full open bid with a 5% premium.  
Inflation Escalation: No inflation adjustment.

Alternative 3C: This alternative proposes moving the building to an undetermined site. For purposes of this  
Relocate, Restore, & estimate it is assumed that the site would be within an 8 hour drive from the current site  
Renovate Cyclorama at (roughly a 300 mile trip). The building wing would be moved in sections, while the drum would  
Undetermined Site be deconstructed and moved on flatbed trucks capable of traveling, unrestricted, on any state  
or federal road. Upon arrival at the new site the drum would be reassembled and reattached to  
the wing whereupon building restoration and renovation would follow as described in Alternative  
3A-Museum.

## Environmental Assessment Cost Alternatives

Reviewed By: JRG  
Date: 03/08/11

	Design Fees	8.0%			\$3,304,592
	Historic Structures Report	1	LS	\$200,000	\$200,000
	Geotechnical Services	1	LS	\$30,000	\$30,000
	<b>Estimated NET Soft Costs</b>				<b>\$3,534,592</b>

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**ALTERNATIVE 4A - PARTIALLY DEMOLISH THE CYCLORAMA BUILDING:**

*Retain a portion of the building as a memorial and restore remaining landscape to 1863 conditions*

**SUMMARY**

Alternative 4A proposes the partial demolition of the Cyclorama Building while retaining a remnant of the building as a memorial to Richard Neutra. The exact nature of the memorial has yet to be determined, for the purposes of this estimate it is assumed that only the rostrum remains. The landscape immediately adjacent to the new memorial would be modified to fit the new use. The remaining landscape would be restored to the 1863 landscape of the original battlefield. The memorial would be managed and interpreted by the National Park Service.

Below is an outline of the general scope of work associated with this alternative.

**Inclusions**

- Historic Structures Report fees.
- Consultant design fees.
- Hazardous material abatement.
- Demolish existing parking lot and construct new parking lot.
- Demolish and dispose of portion of the building not to remain as a memorial.
- Modify landscape adjacent to remnant. Modify access to memorial from other areas of the park.
- Restore remaining landscape to 1863 battlefield conditions.
- Assess the structural stability of the building remnant structure and stabilize as needed. Modify building remnant for new use. Modifications will include any scope required to make the building remnant operational for its new use.
- Exterior restoration of building remnant as described in Alternative 2A.
- Interpretive signs and materials.

## **Class C Construction Cost Estimate**

**Project:** Gettysburg Cyclorama Environmental Assessment Cost Alternatives

**Park:** Gettysburg National Military Park

**PMIS:** GETT 166934A

### **Basis of Estimate**

Alternative 4A: Partial Demolition of the Cyclorama Building and the retention of some elements as a memorial.

Date of Estimate: 03/08/11

Estimated By: GWWO Inc./Architects  
800 Wyman Park Drive, Suite 300  
Baltimore, MD 21211  
(410) 332-1009

Supporting Material: Draft of Cyclorama Building Implementation Plan/Environmental Assessment  
Historic American Building Survey (HABS) drawings and data sheets

Cost Data: RS Means 2011 Cost Data  
McGraw Hill 2011 Cost Data  
GWWO comparative project cost data

Mark-ups and Add-ons: Published Location Factor: RS Means (York, Pennsylvania).  
Project Remoteness: Site is in an urban location.  
Federal Wage Rate Factor: 6 Percent Guidance from NPS.  
Design Contingency: 30 percent.  
Standard General Conditions: 10 percent.  
Government General Conditions: 10 percent.  
Bonds and Permits: 1.5 percent bond included in General Conditions. No permit costs.  
Historic Preservation Factor: 5 percent.  
Overhead: 10 percent.  
Profit: 10 percent.  
Contracting Method Adjustment: Expected contract to be full open bid with a 5% premium.  
Inflation Escalation: No inflation adjustment.

Alternative 4A: Partial Demolition of the Cyclorama Building and the retention of some elements as a memorial. Alternative 4A proposes the partial demolition of the Cyclorama Building while retaining a remnant of the building as a memorial to Richard Neutra. The exact nature of the memorial has yet to be determined, for the purposes of this estimate it is assumed that only the rostrum remains. The landscape immediately adjacent to the new memorial would be modified to fit the new use. The remaining landscape would be restored to the 1863 landscape of the original battlefield. The memorial would be managed and interpreted by the National Park Service.

## Environmental Assessment Cost Alternatives

### Alternative 4A: Demolish the Cyclorama Building

Reviewed By: JRG  
Date: 03/08/11

	Design Fees	10.0%			\$537,086
	Historic Structures Report	1	LS	\$200,000	\$200,000

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**ALTERNATIVE 4B - DEMOLISH THE CYCLORAMA BUILDING:**

*Fully demolish the building and restore surrounding landscape to 1863 conditions*

**SUMMARY**

Alternative 4B proposes the complete demolition of the Cyclorama Building. The landscape formerly occupied by the building would be restored to the 1863 landscape of the original battlefield.

Below is an outline of the general scope of work associated with this alternative.

**Inclusions**

- Historic Structures Report fees.
- Hazardous material abatement.
- Demolish existing parking lot and construct new parking lot.
- Demolish and dispose of the building.
- Restore remaining landscape to 1863 battlefield conditions.



## **Class C Construction Cost Estimate**

**Project:** Gettysburg Cyclorama Environmental Assessment Cost Alternatives

**Park:** Gettysburg National Military Park

**PMIS:** GETT 166934A

### **Basis of Estimate**

Alternative 4B: Demolition of the Cyclorama Building and rehabilitation of the surrounding landscape.

Date of Estimate: 03/08/11

Estimated By: GWWO Inc./Architects  
800 Wyman Park Drive, Suite 300  
Baltimore, MD 21211  
(410) 332-1009

Supporting Material: Draft of Cyclorama Building Implementation Plan/Environmental Assessment  
Historic American Building Survey (HABS) drawings and data sheets

Cost Data: RS Means 2011 Cost Data  
McGraw Hill 2011 Cost Data  
GWWO comparative project cost data

Mark-ups and Add-ons: Published Location Factor: RS Means (York, Pennsylvania).  
Project Remoteness: Site is in an urban location.  
Federal Wage Rate Factor: 6 Percent Guidance from NPS.  
Design Contingency: 30 percent.  
Standard General Conditions: 10 percent.  
Government General Conditions: 10 percent.  
Bonds and Permits: 1.5 percent bond included in General Conditions. No permit costs.  
Historic Preservation Factor: 5 percent.  
Overhead: 10 percent.  
Profit: 10 percent.  
Contracting Method Adjustment: Expected contract to be full open bid with a 5% premium.  
Inflation Escalation: No inflation adjustment.

Alternative 4B: Demolition of the Cyclorama Building and rehabilitation of the surrounding landscape. Alternative 4B proposes the complete demolition of the Cyclorama Building. The landscape formerly occupied by the building would be restored to the 1863 landscape of the original battlefield.

## Environmental Assessment Cost Alternatives

### Alternative 4B: Demolish the Cyclorama Building

Estimate By: EGF

**Date:** 03/08/11

PMIS: GETT 166934A

### Alternative 4B - Full Demolition

Reviewed By: JRG

**Date:** 03/08/11

**Estimate is based on 2011 costs**

Item No.	Description	Quantity	Unit	Cost/Unit	Total
	Hazardous Material Abatement	1	LS	\$255,000.00	\$255,000
	Building Demolition	1	LS	\$430,000.00	\$430,000
	Waste removal and disposal	1	LS	\$50,000.00	\$50,000
	Site Restoration to 1863 Conditions	1	LS	\$790,000.00	\$790,000
	New Parking Lot	61	CAR	\$1,200	\$73,200
	<b>Subtotal Direct Construction Costs</b>				<b>\$1,598,200</b>
	Published Location Factor	-6.0%			-\$95,892
	Remoteness Factor	0.0%			\$0
	Federal Wage Rate Factor	6.0%			\$62,330
	Design Contingency	30.0%			\$479,460
	<b>Total Direct Construction Costs</b>				<b>\$2,044,098</b>
	Standard General Conditions	10.0%			\$204,410
	Government General Conditions	10.0%			\$204,410
	Historic Preservation Factor	5.0%			\$102,205
	<b>Subtotal NET Construction Cost</b>				<b>\$2,555,122</b>
	Overhead	10.0%			\$255,512
	Profit	10.0%			\$255,512
	<b>Estimated NET Construction Cost</b>				<b>\$3,066,147</b>
	Contracting Method Adjustment	5.0%			\$153,307
	Inflation Escalation	0.0%			\$0
	<b>Total Estimated NET Cost of Construction</b>				<b>\$3,219,454</b>

	Design Fees	5.0%			\$160,973
	Historic Structures Report	1	LS	\$200,000	\$200,000
	<b>Estimated NET Soft Costs</b>				<b>\$360,973</b>

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#### Impact and Costs Analysis Study for Relocating the Gettysburg Cyclorama Center

February 7, 2011

Prepared for:  
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#### INTRODUCTION

The objective of this study is to analyze the overall impact and costs associated with relocating the Gettysburg Cyclorama Center (GCC) located in Gettysburg, Pennsylvania. We have been asked to evaluate this project from a number of different angles and the challenges associated with the relocation phase of this project.

#### STRUCTURE

The GCC itself is primarily constructed of concrete and steel containing two main structural components. Though the two sections are connected, we suggest separating the two pieces for relocation purposes. The first component of the GCC is a 125' diameter drum shaped structure with a 100' recessed foundation and is approximately 50' tall. This component also has an apron shaped area attached to it which contains the auditorium and other finished space. The

drum has an inner concrete drum that begins at the first floor and extends up to the third floor. The drum portion has a substantial steel roofing system which will provide structural support during transit.

The second section of the GCC is a 210' concrete wing that attaches to the apron of the drum. The wing has two stories and stands approximately 25' tall. This section contains a rather large pedestrian ramp on the west side.

#### RELOCATION PROCESS

In consideration of the large scale of this project, we would recommend the recruitment of several other structural moving companies to expedite the project and insure that timelines, if any, are met. This is a fairly standard practice in our industry regarding large scale projects simply because most movers do not employ enough labor to complete a job of this magnitude in a timely fashion. It is notable that a collaborative house moving effort elevates the overall relocation costs by at least 15%. This cost will be included in the projected costs of this study.

The second reason we mention this is because we assume the NPS would want to expedite this project in an attempt to reduce any negative impact to the park regarding visitors. Moving the GCC is a major undertaking that would require certain areas of the park to be closed to the public for extended periods of time. For this study, we will assume the NPS would attach stringent time restraints to the project in an attempt minimize the overall negative impact on the park and its visitors.

With a collaborative house moving effort, the relocation phase of this project could realistically be accomplished within 3 to 4 months. To help insure this timeline is met, it would be advised that the relocation phase of this project be done during the late spring or summer months so that weather has a minimal impact on working conditions.

On the other hand, we understand that the spring and summer months are likely the peak season for the NPS and that relocating the GCC during this time may not be practical from the NPS's perspective. With this in mind, the NPS may require this project to take place during the winter months. By doing so, this will add to the relocation costs due to shorter daylight working hours and typical weather conditions for this region and its effect on working conditions. We estimate this to add several weeks to a month to the overall timeframe of relocation phase of the project and add 10 -15% to the overall costs. These costs are also reflected in the projected costs of this study.

As mentioned, we would recommend separating the wing from the drum in order to move the structure. To do so, we would like to remove an approximately 5' section of the wing where it connects to the apron of the drum. This 5' gap would allow ample room for steel beam and dolly placement and also provide room for workers to properly shore the end wall of the wing. It would also allow ample space to raise and move the wing while the drum is still connected to its foundation.

We also do not recommend transporting the first floor concrete slab of either structure. There are several reasons for not doing so. The first reason being the arduous task of properly supporting a concrete slab floor for relocation purposes. To carry a slab, a mover would have to excavate 4 to 6 feet under the slab in order to accommodate the necessary steel underpinning and hydraulic jacks to raise the structure. In order to move the structure, a long ramp of no more than a 5% grade would then be excavated at the south end of the wing. The hole created under the slab would then be filled in after the structures have been relocated. This type of procedure from a structural movers standpoint is extremely labor intensive, time consuming, and often very costly to do.

Another reason for not carrying the slab is the uncertainty of encountering rock underneath it. After reviewing the original soil tests completed in the late 1950's, it appears there is rock underneath the slab and rock removal could add major costs and loss of time to the project. For obvious reasons one could not simply blast the rock to remove it. Likely manual labor involving pneumatics jack hammers and rock saws would be utilized to remove rock where machinery could not reach it.

The last reason not to transport the first floor slab is simple, concrete is relatively inexpensive. The concrete floor adds no aesthetic value to the GCC, therefore we feel there is no real value in trying to transport it.

In regards to stabilization of the structure without the first floor slabs, the second floor and roof of each structure should provide ample support to sustain each structure during transit. Strategic shoring would be added once the steel underpinning is placed in both structures.

The one major drawback to raising the building above the slab is that it would be necessary to saw cut holes through the foundation walls so that steel beams could be placed to support the structure. This type of approach to a masonry structure with a slab is standard procedure for most structural movers. The idea is to support the structure on steel beams typically every 2 to 8 feet depending on the type of structure. Because of the rigidity that a concrete structure

provides, the holes cut into the foundation of the GCC would be closer to 6 to 8 feet apart. The concern with this procedure would be how to fix those areas once the buildings have been relocated. This would not be an issue for those areas that would be subgrade at the new site but for those areas above grade it would have to be addressed. We mention this because costs associated with this patchwork should be figured by others in the overall budget for the project.

Another drawback to this procedure would be the demolition of all nonstructural components located on the first floor of each section. We would require any wood, sheetrock, plumbing, etc. removed so that the interior concrete walls are exposed prior to work commencement.

In order to raise each structure for transport, approximately six to eight feet of soil would be excavated around the entire structure, most notably the west side of the GCC. To do so it would be advised to remove the pedestrian ramp on the west side prior to excavation. The current location of the ramp would hinder excavation. Current soil heights would ultimately dictate how much soil would be removed. Note that excavated soils could be used to level portions of the move route. Once the soils have been excavated, beam holes would be cut approximately four feet above the current slab floor of the first level. These holes are to accommodate the steel beam underpinning that would carry the structure during transit.

Once the steel underpinning is in place and hydraulic jacks have been installed in the jacking cribs, the structure would be raised approximately three to four feet so that self-propelled hydraulic power dollies would be positioned under the beams. Once in place, the hydraulic power dollies would then transfer the weight load from the jacking cribs to the dollies. The dollies would be configured into three zones to cause minimal stress to each structure during the moving process.

The next step to the process would be to actually move the structures. The self-propelled hydraulic power dollies would move, steer and elevate by remote control. Steel plating would be utilized to create a sturdy surface for the move route and to lessen the impact on the National Park Grounds. Dolly weights would not exceed more than 40 tons which is the standard for most modern house moving dollies.

Having worked for the National Park Service (NPS) in the past, we are aware of their concerns regarding land disturbance within park boundaries. We would like to have a clear understanding of what soils can be disturbed and to what extent our impact would be tolerated by the NPS. The NPS would likely conduct archeological digs along the chosen move route prior to work commencement. We would encourage close coordination with the NPS regarding this matter.

## POTENTIAL MOVE SITES

On January 28, 2011 Mr. Eric Feiss provided us with drawings illustrating two potential sites being considered for the relocation of the GCC. Both sites are located within NPS boundaries and appear to be viable relocation routes.

A third moving scenario has been mentioned that would require the GCC to be moved outside NPS boundaries to an undetermined site. In this scenario the GCC would be offered to the public, presumably through a public auction or sealed bid. The successful bidder would then provide a site for the structure to be relocated to. As discussed with Mr. Feiss, this scenario is not practical from a number of different standpoints. First of all, we are not dealing with a small structure, like a house for example. In the past we have moved numerous houses that have been purchased at public auctions by both individuals and businesses alike. Houses are more conducive to relocation because of their size and affordability. In regards to the GCC, we would be dealing with a large, long structure that weighs thousands of tons. The logistics involved with moving such a structure is complicated and requires a tremendous amount of coordination among all parties involved. Therefore moving this structure to an undetermined site outside of NPS boundaries makes it impossible for us to project costs.

Both sites located within NPS boundaries appear to be suitable for moving the GCC. Both sites would require the crossing of state route 134 (Taneytown Road) and coordination with the Pennsylvania Department of Transportation (PDOT) would be required. Normal procedure would involve the PDOT to complete an investigation report of the route and inspect the current condition of all state roads being utilized before issuing a permit. They would likely require notification from all utility companies involved with their particular plan of action for the move. We see no reason why the PDOT would not issue a permit for this project. The only uncertainty is what restrictions and stipulations that would affect our costs would be enforced for such a move. For example they may require the move to take place at night to ensure minimal traffic delays. It should also be noted that our plan to move the structure would involve each section of the GCC to cross the road on separate dates. We estimate it could take several hours to cross the road with each section.

The first site is located approximately one half mile southeast from the current location of the GCC. The structure would be set parallel with Hunt Avenue with the drum positioned east. Topography maps indicate there is a drop in elevation of approximately 40 feet from the GCC's existing location to site 1. The overall grade of this route should not present an issue in regards to moving the structure but there are some areas that would require fill dirt for leveling the



route. We view this site as the best route for the GCC to travel but not necessarily the best option because of the new proposed orientation of the structure.

In order to orientate the structure as illustrated on site 1, we would have to rotate the structure so that the apron on the drum faces west. Things are further complicated because the wing would have to be moved temporarily out of the way so that the drum could be positioned at the new site first. This would require enough dollies to move both structures at the same time which in return increases our costs. Once the drum has been placed and retrofitted to its new foundation, then the wing could be positioned and retrofitted to its new foundation.

Ideally site 1 would be better suited for the GCC if the structure was rotated 180 degrees so that the drum apron would face eastward. By doing so, the wing could be moved first and then retrofitted to the new foundation. The same dollies could then be removed and utilized to move the drum. In fact, the foundation contractors could complete their work on the wing while the drum is being prepped for relocation. The main concern with rotating the structure on this site would be if the topography would allow the structure to have the same elevation as it currently has. This may be an option the NPS would like to explore since it could save on costs associated with rotating the drum and having to move the wing to the side so that the drum could be moved first. Note that all costs associated with this study will assume the structure cannot be rotated.

Site 2 is located nearly one mile away from the current location of the GCC and the route is not as favorable as the route to site 1. Contrary to site 1, the orientation of the building on site 2 is better suited for relocation. It is sequentially more conducive for the move and would not require the building to be rotated. The mover could prepare and move the wing into position at site 2 and then start the prep work on the drum while the foundation is being completed on the wing. The topography on this route would require considerably more fill dirt to accommodate the move. Additionally it will take considerably longer to travel this route due to the process of steel plating the path ahead of the structure.

#### PROJECTED COSTS

Moving GCC to site 1 or 2	\$2,800,000 - \$3,300,000
Responsibility of Mover	

- Disconnect the wing from the drum by removing 5' section of the wing
- Disconnect and dismantle the west side pedestrian ramp. Removal of concrete debris to be done by others.
- Excavate around the entire structure to expose lower walls
- Saw cut holes to allow for beam placement.
- Saw cut structure free from existing foundation
- Provide the necessary equipment, material, and labor to transport the GCC to site 1 or site 2
- Haul in and remove up to 10,000 cubic yards of soil required level the move route
- Coordinate with PDOT regarding the crossing of Taneytown Road
- Coordinate with local utility companies
- Coordinate with NPS regarding the move route
- Not responsible for disposal of any construction debris

#### Responsibility of Others

- All permitting require to relocate the GCC
- All engineering costs associated with relocation
- Remove all nonstructural components found on the first floor of the GCC
- Remove all, if any, monuments that impede the move route
- All utility disconnection or removal costs associated with move
- All retrofitting and foundation work at new site to release the mover's equipment
- All final grading of land disturbed during the moving process
- Removal of any component of the structure that needs to be removed prior to work commencement and needs to be reinstalled once the structure is relocated. For example the first floor windows of the drum.

#### Responsibilities to be Negotiated

- Insurance
- Bonding

Note – the pricing to move the GCC to sites 1 and 2 is roughly the same because of the orientation issue we discussed earlier in this study. The costs to move to site 1 could be reduced by as much as 10% if the GCC's orientation is rotated 180 degrees.

Also noteworthy is that fill dirt costs could be reduced if the NPS could utilize the dirt so that it would not be hauled away after the GCC has been moved. One suggestion would be to use it to back fill and grade the existing site of the GCC. The saving could be as much as \$50,000.00 if they could do so.





As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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United States Department of the Interior – National Park Service