

Pea Ridge National Military Park

Cultural Landscape Report and Environmental Assessment

September 2014



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National Park Service
U.S. Department of the Interior

Pea Ridge National Military Park
Arkansas

PEA RIDGE NATIONAL MILITARY PARK CULTURAL LANDSCAPE REPORT AND ENVIRONMENTAL ASSESSMENT FINDING OF NO SIGNIFICANT IMPACT

INTRODUCTION

In compliance with the National Environmental Policy Act (NEPA) and implementing regulations published by the Council on Environmental Quality and the Department of the Interior, the National Park Service (NPS) prepared an environmental assessment (EA) for implementing preferred cultural landscape treatment alternatives at Pea Ridge National Military Park (the park) in Pea Ridge, Arkansas. In addition, the NPS is using the EA to document compliance with Section 106 of the National Historic Preservation Act (NHPA) pursuant to 36 Code of Federal Regulations (CFR) Part 800.8(c). This Finding of No Significant Impact (FONSI) describes the alternative the NPS has selected for implementation, provides the rationale for its selection, and explains why it will not have significant impacts on the human environment. This FONSI concludes the NEPA and Section 106 of the NHPA compliance processes. As such, implementation of this plan, as written, has satisfied all of the requirements for compliance and will be implemented as funding and personnel allow.

BACKGROUND

The park was established by Congress on July 20, 1956 to "preserve and protect the landscapes and resources associated with the Battle of Pea Ridge" and "interpret the battle as an integral part of the social, political, and military history of the Civil War" (70 Statute (Stat.) 592). The Battle of Pea Ridge (also known as the Battle of Elkhorn Tavern) in northwest Arkansas was the largest Civil War battle west of the Mississippi River and essentially secured northwest Arkansas and the state of Missouri for the Union. The name of the battle was derived from the nearby city of Pea Ridge, supposedly named for the wild "turkey peas" or "hog peanuts" that were harvested by the indigenous American Indian tribes.

The park's General Management Plan (GMP), completed in 2006, set the goals for cultural landscape management at the park. The overarching goals of the GMP include "refining cultural

and natural resource management strategies", "returning the battlefield landscape to the 1862 appearance" and "ensuring that all visitors understand and appreciate the significance of Pea Ridge National Military Park." The NPS has completed the combined Cultural Landscape Report and Environmental Assessment (CLR/EA), the purpose of which is to provide guidance for preserving the cultural landscape of Pea Ridge National Military Park as the historic site of the Battle of Pea Ridge. The CLR is being prepared to facilitate implementing the park's cultural landscape management goals outlined previously in the park's GMP.

Natural and man-made changes to the landscape of the park area and environs have occurred over the past 150 years since the time of the battle. The CLR is needed to generate baseline documentation, document the changes to the cultural landscape over time, to transfer knowledge, and to provide holistic and integrated guidance for the long-term preservation and stewardship of the cultural landscape.

This FONSI and the CLR/EA constitute the record of the environmental impact analysis and decision-making process associated with selecting and implementing the selected alternative, which defines the management and treatment of the cultural landscape at the park. The selected alternative includes measures to protect cultural resources, improve visitor enjoyment, and provide long-term conditions necessary to sustain natural and cultural resources. The selected alternative was selected after careful review of resource and visitor impacts and public comment.

This document records 1) a FONSI as required by NEPA and concurrent compliance with Section 106 of the NHPA, and 2) a determination of no impairment as required by the NPS Organic Act of 1916 (see Attachment A).

ALTERNATIVES CONSIDERED

The CLR/EA considered three action alternatives and a no action alternative. These alternatives are discussed below.

No Action Alternative

The no action alternative provides "a baseline of existing impact continued into the future against which to compare impacts of action alternatives." Under the no action alternative, the present level of use, management, interpretation, operations, and maintenance would continue. As identified in the 2006 GMP, "park management would retain and enhance a substantial portion of the historic character of the battlefield landscape." Current management and maintenance activities would continue over time, as park funds allow. Current management activities include the following:

- The existing visitor center / administration complex would remain until such a time a new facility would be built. The sites of existing buildings would be repaired after the facilities

were removed. This repair would include the abandonment of some utilities with rehabilitation of these areas to a condition that would reflect the historic 1862 setting.
- A new visitor center/facility would be constructed on the west edge of the park. As part of the visitor center relocation, adjustments would be made to the tour road to provide access to and from the new facilities.
- The recommendations for treatment of vegetation within the study area, identified by the Vegetation Management Plan (VMP), would be followed.

Under the no action alternative, the least change to the existing cultural landscape would occur. Although the management items listed above would continue to be implemented slowly over time, the natural and man-made changes that have altered the landscapes and resources associated with the Battle of Pea Ridge would not be noticeably changed. The integrity of the cultural landscape would continue to deteriorate over time due to issues such as a lack of guidance on stabilizing and managing cultural landscape features and the continued growth of vegetation that obscures the cultural landscape; which would reduce the interpretation value and visitor understanding of the battlefield landscape.

Action Alternatives

Components Common to All Action Alternatives

Three action alternatives were determined to meet the park's purpose, need, and objectives for taking action. The following components are actions that were proposed for cultural landscape management, regardless of which action alternative was selected. Therefore, these components are noted as being common to all action alternatives.

1. A new visitor center / facilities complex would be located on the west edge of the park as recommended by the GMP/EIS. The complex would be located north of Leetown Hamlet, accessed by Old Leetown Road. This would become the relocated / re-routed Highway 72.
2. The existing visitor center complex would remain for the short-term. It be would be screened to visually minimize its impact on the historic battlefield. The complex was built in the 1960s as part of the Mission 66 program, and would be evaluated by NPS MWRO to determine its significance to this period. Repair of the site after the facilities are removed would include abandoning some utilities, and rehabilitating this area to a condition similar to its 1862 setting.
3. Arkansas Highway 72 would be rerouted outside the park boundaries in compliance with the GMP/EIS recommendations. This would assist in the rehabilitation of the cultural landscape and would assist in re-establishing the historic agrarian setting.
4. U.S. Highway 62 would be relocated to the park's southern boundary. The park road, park entry and parking at the visitor center would be modified as would the tour road, parking at Elkhorn Tavern, and the horse trailhead. These modifications would be in accordance with the preferred alternative for the mitigation of the highway relocation. A restroom facility would be part of the new parking at Elkhorn Tavern.

5. Pedestrian and equestrian uses would be allowed on historic circulation routes with maintenance actions tailored to manage these uses. Bicycle use would be prohibited on historic routes.
6. The horse trail would remain as a park amenity and would be managed according to best practices. The horse trail would follow historic circulation routes with maintenance actions tailored to manage this use.
7. The Trail of Tears would be included with the repair of Telegraph Road as it is an important historical event. This importance relates to the road's inception in the 1830s, and its role as part of the northern route of the Trail of Tears.
8. Known sites of mass graves from the Battle of Pea Ridge would be identified and preserved. Investigations on the location, number of dead / buried, and troop identification would be undertaken.
9. Cross Timber Hollow via Telegraph Road would offer an important 'back country' experience, accessible by foot or horse with maintenance actions tailored to use. Further research and investigations would be conducted to identify connections between the tanyard and Van Dorn to determine the role, if any the tanyard had with the battle.
10. Further research and investigations would be conducted for hospital site(s) noted on historic maps of the 1862 battle. These maps indicate several hospital sites in Cross Timber Hollow and other locations within the park.
11. At Winton Springs, historical research would be conducted to define extant features in existence at the time of the battle (potentially foundations, remnants, springhouses, roads). Extant features that date from the period of significance would be stabilized. The existing road and gravel area would be retained and reconfigured for park use.
12. The three monuments would be preserved and repaired. The setting of the two monuments at Elkhorn Tavern would be rehabilitated to reflect the 1880s appearance and to allow for pedestrian access. The setting of the 1930s monument would be preserved.
13. Non-contributing features not needed for functional purposes or that detract from the historic setting would be removed. Maintain existing orchards (at a minimum).
14. The recommendations of the Vegetation Management Plan (VMP) would be followed for the study area. Recommendations for sites identified by the VMP for inclusion in the CLR/EA: Ford Farm, Winton Springs, Leetown Hamlet, Elkhorn Tavern / Williams Hollow, and Federal Trenches would be treated as recommended in this CLR/EA.
15. The natural systems of the Pea Ridge cultural landscape, including the natural drainages of the park, would be preserved and maintained. These drainages include Lee Creek, the South Branch of Winton Spring, and the seasonal drainages of Cross Timber and Williams hollows. The vegetation of these waterways would be maintained in a native state to convey the historic setting and to protect stream banks and channels from excessive cutting and erosion.

Because these aspects of the alternatives do not differentiate between the action alternatives, the remaining discussion is focused on general recommendations unique to each alternative. A full description of the alternatives is contained in the CLR/EA.

Alternative 1 – Investigating and Preserving the Battle Landscape

Alternative 1 would undertake further research and investigations needed to accurately convey the historic setting, particularly at each landscape character area. Preservation and repair of extant contributing features would be undertaken.

This alternative would focus on preservation, stabilization, and repair of extant features. The research and identification of extant below-grade features would be undertaken. Spaces and relationships between non-extant features would be re-established. This alternative would reveal historic spaces and landscape patterns using the simplest approaches with the least amount of modifications to the cultural landscape.

Alternative 1 would provide a sense of the scale and space of the landscape setting that existed at the time of the battle. Extant features such as roads and the rebuilt historic fences would be preserved. Contributing features would be stabilized and repaired but no additional elements would be added. The focus of this alternative would on additional research and further investigations to understand the appearance of the landscape during the period of significance.

Alternative 2 – Revealing the Battlefield Landscape (Selected Alternative)

The selected alternative would reveal the landscape that soldiers and civilians experienced during the Battle of Pea Ridge in 1862 through 1865. This would be accomplished by re-establishing the spatial qualities of the historic setting. Extant contributing features would be preserved and repaired, and non-extant features that existed at the time of the battle would be identified and marked.

The personal stories of the inhabitants (farm owners, families, slaves, etc.) and accounts from the soldiers would be researched. Opportunities for interpretation of the battle landscape, the influence the battle had on the community, experiences of the soldiers, and the aftermath of the war would be provided.

Further archeological investigations and research would be undertaken, particularly at key sites (e.g., Leetown Hamlet, Elkhorn Tavern). Investigations would focus on identifying below-grade remnants of buildings, structures, roads and features.

The spatial relationships and views of the physical setting would be re-established through the removal and thinning of vegetation, and repair and use of the 1862 circulation system. This alternative would focus on the preservation, stabilization and repair of features. Compatible additions and uses would be allowed.

Alternative 3 – Reconstructing the Battle Scene

This alternative would focus on accurately conveying the historic setting of the Battle of Pea Ridge to closely resemble what the fighting soldiers witnessed.

Extant contributing features would be repaired to reflect their historic appearance. Preservation and repair of the spatial qualities of the historic site would be undertaken. The non-extant features that existed at the time of the battle would be marked as extensive three-dimensional representations.

Further archeological investigations and research would be undertaken, particularly at key sites (i.e., Leetown Hamlet, Elkhorn Tavern) to identify below-grade remnants of buildings, structures, and roads. Alternative 3 would closely follow the recommendations of the GMP / EIS to provide access to the Federal Trenches from the north.

ENVIRONMENTALLY PREFERABLE ALTERNATIVE

The environmentally preferable alternative is the alternative required by 40 CFR 1505.2(b), to be identified in a record of decision, that causes the least damage to the biological and physical environment and best protects, preserves, and enhances historic, 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 (43 CFR 46.30).

Alternative 2 is the environmentally preferable alternative for several reasons. Based on the enabling legislation of the park, which is "to preserve and protect the landscapes and resources associated with the battle of Pea Ridge, [and] to interpret the battle as an integral part of the social, political, and military history of the Civil War…" (70 Stat. 592), the historic and cultural resources in the park hold great importance and priority for park management. Alternative 2 will provide the best balance between the preservation of historic and cultural resources and the protection of the natural resources within the park.

WHY THE SELECTED ALTERNATIVE WOULD NOT HAVE A SIGNIFICANT EFFECT ON THE HUMAN ENVIRONMENT

The intensity or severity of impacts resulting from implementing the selected alternative is evaluated using the 10 criteria listed in 40 CFR § 1508.27. Key areas in which impacts were evaluated include cultural resources, vegetation, wildlife, visual resources, visitor experience, and park operations. As defined in 40 CFR § 1508.27, significance is determined by examining the following criteria.

Impacts that May be Both Beneficial and Adverse; a Significant Effect May Exist Even if the Park Service Believes that on Balance the Effect Would be Beneficial

The selected alternative will result in both beneficial and adverse impacts. In general, the alternative provides beneficial effects on cultural resources, vegetation, visual resources, visitor

experience, and park operations. Cultural resources will benefit from preservation, repair, and rehabilitation of extant contributing features; additional knowledge of archeological resources; and restoration of the special qualities of the historic setting. Benefits to vegetation will result from vegetation management that will improve vegetation health. The benefits to visual resources and visitor experience will result as new knowledge and understanding are incorporated into vegetation management, preservation of cultural landscape features, and interpretative programing. The benefits to park operations will result from providing more guidance on cultural landscape management activities and increasing interpretation and education value.

Adverse impacts on vegetation, wildlife, visual resources, visitor experience, and park operations will be local and parkwide, short– and long–term, and slight, and will result from implementation and maintenance of the proposed circulation and vegetation modifications. No specific mitigation measures will be needed to reduce adverse impacts of the selected alternative beyond the best management practices (BMPs) listed in Table 3 of Chapter 4 of the CLR/EA. A summary of effects to resources is found in Table 3 of Chapter 4 the CLR/EA.

Degree of Effect on Public Health or Safety

Due to the nature of the proposed activities, the selected alternative will not pose a threat to public health and safety. Areas subject to vegetation management and other mechanized activities will be closed to visitors during work periods. In addition, the public will be alerted by signs or barriers.

Unique Characteristics of the Geographic Area such as Proximity to Historic or Cultural Resources, Monument Lands, Prime Farmlands, Wetlands, Wild and Scenic Rivers, or Ecologically Critical Areas

As described in the CLR/EA, the selected alternative will not affect prime farmlands, wild and scenic rivers, or ecologically critical areas because those resources do not exist in the park. Buffer zones will ensure the protection of wetlands. The NPS will continue to identify potential historic properties within areas of the park proposed for ground disturbance and where previous surveys have not occurred.

Degree to Which Effects on the Quality of the Human Environment are Likely to be Highly Controversial

The selected alternative is not highly controversial. No issues arose during public scoping or the preparation of the CLR/EA from park staff. No issues were brought to the park's attention during the public review period that indicated a dispute with either the methods or results of the analysis of topics.

Degree to Which the Possible Effects on the Quality of the Human Environment are Highly Uncertain or Involve Unique or Unknown Risks

No highly uncertain, unique, or unknown risks were identified during the preparation of the CLR/EA or the public review period. In addition, the action will not represent a decision in principle about a future consideration.

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

The selected alternative will not have a significant effect and does not establish a precedent for future actions with significant effects.

Whether the Action is Related to Other Actions with Individually Insignificant but Cumulatively Significant Impacts

The CLR/EA concluded that past, present, and future activities, when coupled with the selected alternative, will have local and parkwide long-term beneficial cumulative effects and local and parkwide long-term slight adverse cumulative effects. No significant adverse cumulative effects were identified. Likely future actions taken individually or collectively will result in no more than local minor adverse cumulative impacts on the human or natural environment.

Degree to Which the Action may Adversely Affect Districts, Sites, Highways, Structures, or Objects Listed on the National Register of Historic Places; or May Cause Loss or Destruction of Significant Scientific, Cultural, or Historical Resources

The selected alternative will have a parkwide long-term direct beneficial effect on cultural landscapes resulting from implementing the recommended treatments, which will not diminish the overall integrity of the cultural landscape. Past, present, and reasonably foreseeable future actions will have both a long-term direct beneficial impact and long-term slight indirect adverse cumulative effect on cultural landscapes and historic properties by improving the cultural landscape through vegetation management activities. The relocation of Highway 62 to south of the park will have a beneficial direct impact; the indirect adverse impacts from present and future residential and commercial development will diminish the cultural landscape. The NPS initiated consultation with the Arkansas State Historic Preservation Office (SHPO) with a scoping letter sent on June 3, 2013. The SHPO also received a copy of the draft CLR/EA for review and comment, and the park will coordinate with the SHPO in the development of mitigation measures for historic and archeological resources, if necessary. The SHPO responded with a letter of concurrence with the NPS finding of no adverse effect on historic properties in a letter dated June 25, 2014.

Degree to Which the Action May Adversely Affect an Endangered or Threatened Species or its Critical Habitat

No federally listed plant or animal species are known within the park boundaries. In accordance with Section 7 of the Endangered Species Act, the park initiated consultation with the U.S. Fish and Wildlife Service (USFWS) on June 3, 2013. The USFWS also received a copy of the draft CLR/EA for review and comment. In a letter dated May 1, 2014, the USFWS concurred with the NPs finding of no effect on threatened or endangered species.

Whether the Action Threatens a Violation of Federal, State, or Local Environmental Protection Law

The selected alternative violates no federal, state, or local environmental protection laws.

MITIGATION MEASURES

A number of mitigating best management practices (BMPs) will be incorporated into the implementation of the selected alternative to minimize the degree and severity of adverse environmental impacts. BMPs include general measures such as signage and proper cleaning of equipment prior to use in the park, and other resource-specific measures to ensure protection of natural and cultural resources in the park. No specific mitigation measures will be needed to reduce adverse impacts of the selected alternative beyond the BMPs listed in Table 2, Chapter 4 of the CLR/EA.

PUBLIC INVOLVEMENT

During preparation of the CLR/EA, the NPS made efforts to involve the public in the planning process, including soliciting information and data from the public and regulatory agencies. The CLR/EA was made available on the NPS Planning, Environment and Public Comment website and by hard copies placed in the park Visitor Center and Pea Ridge, Arkansas, public library for public review and comment between May 22, 2014 and June 21, 2014. A public meeting was held in Garfield, Arkansas, on June 5, 2014, to allow interested parties an opportunity to comment on the CLR/EA. The park did not receive any comments from the public regarding the CLR/EA.

FINDING OF NO SIGNIFICANT IMPACT

Based on the review of the facts and analysis contained in the CLR/EA the NPS has selected Alternative 2 for implementing the CLR/EA at the Pea Ridge National Military Park. Alternative 2 will not have a significant impact either by itself or in consideration of cumulative impacts. Accordingly, the requirements of NEPA, regulations promulgated by the President's Council on Environmental Quality, provisions of NPS Director's Order-12 and Handbook (Conservation

FINDING OF NO SIGNIFICANT IMPACT

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Recommended: Brenda M. Waters — Brenda Waters, Acting Superintendent — 09/02/2014 — Date

Approved: Patricia S. Trap — Patricia S. Trap, Acting Regional Director, Midwest Region — 9.11.2014 — Date

ATTACHMENT A
NON-IMPAIRMENT DETERMINATION
PEA RIDGE NATIONAL MILITARY PARK
CULTURAL LANDSCAPE REPORT
AND ENVIRONMENTAL ASSESSMENT

PEA RIDGE NATIONAL MILITARY PARK
CULTURAL LANDSCAPE REPORT AND ENVIRONMENTAL ASSESSMENT
NON-IMPAIRMENT DETERMINATION

In addition to determining the environmental consequences of alternatives to proposed actions, National Park Service (NPS) *Management Policies 2006* and Director's Order–12 require an analysis of potential effects to determine if actions will impair park resources. Impairment is an impact that would, in the professional judgment of the responsible NPS manager, harm the integrity of park resources or values, including opportunities that will otherwise be present for the enjoyment of those resources or values. A determination of impairment is made for particular resource impact topics carried forward and analyzed in the environmental assessment for the selected alternative. The selected alternative for meeting the objectives established in the Pea Ridge National Military Park Cultural Landscape Report and Environmental Assessment (CLR/EA), Alternative 2, is described in Chapter 4 of the CLR/EA. The CLR/EA also includes detailed information on existing conditions of resources (CLR/EA Chapter 3) and the effects the selected alternative will have on those resources (CLR/EA Chapter 5). Existing conditions and effects are briefly summarized in this impairment determination.

The description of park significance in Chapter 1 of the CLR/EA was used as a basis for determining if a resource is:

- Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park, or
- key to the natural or cultural integrity of the park, or to opportunities for enjoyment of the park, or
- identified in the park's general management plan or other relevant NPS planning documents as being of significance.

This impairment determination is based on current NPS guidance on determining impairment of park resources and values. The impairment determination for each resource and value includes:

- a brief description of the condition of the resource;
- whether the resource is necessary to fulfill the purposes for which the park was established;
- whether the resource is key to the natural or cultural integrity of the park or to the opportunity for enjoyment of the park;
- whether the resource is identified as a significant resource in the park's planning documents; and
- a statement as to why the action will or will not result in impairment of the resource, including a discussion of the context, severity, duration, and timing of any impacts, and

any mitigation measures, if applicable.

Based on the aforementioned guidelines and basis for determining impairment of park resources and values, a determination of impairment is made for the following resource impact topics carried forward and analyzed in the CLR/EA for the selected alternative: cultural resources, vegetation, wildlife, and visual resources.

CULTURAL RESOURCES

The park's 4,300 acres encompass about 90% of the actual battlefield. At the time of the battle, the area included the agricultural community of Leetown, which included a number of farms and homes bounded by woodlands. The natural elements of the cultural landscape include agricultural fields, orchards, open prairie, and woodlands. Topography and drainages played a crucial role in the outcome of the battle and, therefore, are part of the cultural landscape. Because the existing structures that were present during the 1862 battle were integral to troop movements and the outcome of the battle, the structures have been evaluated as contributing and noncontributing elements of the National Register–listed military park.

The park's cultural resources, which are necessary to fulfill the purpose of the park, are key to the cultural integrity of the park and are considered a significant park resource.

The selected alternative will include vegetation management that will restore some aspects of the cultural landscape by reestablishing views; clearing trees and dense vegetation from landscape character areas; and providing indications of the location of non–extant structures. Some extant contributing features would be preserved and repaired. Archeological investigation would add to the knowledge and understanding of cultural resources in the park. The selected alternative would also rehabilitate historic circulation patterns, identify and mark sites and locations of non–extant features, and depict the mass, form, and scale of certain non–extant features. These activities would improve the cultural resources in the park and would have a local moderate long–term beneficial effect on the cultural resources. Because the changes to the cultural landscape will be beneficial, there will be no impairment of cultural resources. The cultural resources for which the park was created will remain in good or improved condition and will be enjoyed by current and future generations.

VEGETATION

The existing vegetation that resembles historic vegetation patterns contribute to the park's historic character and are necessary to fulfill the park's purpose of preserving and interpreting the history of the area, are key to the cultural and natural integrity of the park, and are considered significant park resources.

Current vegetation management in the Ford Area, Leetown Hamlet, and Elkhorn Tavern/Williams Hollow would generally continue, with some minor changes to better reveal the spatial relationships of roads and extant and non-extant buildings. The farmstead character of the Ford and Elkhorn Tavern/ Williams Hollow areas would be expressed by managing vegetation to establish fields and, possibly, orchards. Additional vegetation management would include clearing and thinning trees and/or trimming shrubs in portions of the landscape character areas, including Elk Mountain and the Federal Trenches, to open up historic views and lines of sight. Many of these areas include forest and brush that have encroached into historically cleared areas. The changes in vegetation management would be consistent with the overall goal of improving vegetation health and better depicting the historic character of the battlefield during the period of significance.

Overall, the proposed actions from the selected alternative will result in a parkwide long-term beneficial impact on vegetation. The selected alternative will have a beneficial effect by increasing visitor understanding of the Battle of Pea Ridge and improving vegetation health.

The effects of the selected alternative will be beneficial and will modify the vegetation to improve its role in fulfilling the park's purpose of preserving or interpreting the history of the area. Thus, the selected alternative will not impair vegetation resources because the park's vegetation will remain in the same or better condition and will contribute to the enjoyment of current and future generation of visitors.

WILDLIFE

The dense forests, open fields, and prairies in the park provide year-round habitat for a variety of wildlife. Common species in the park include white-tailed deer (*Odocoileus virginianus*); coyote (*Canis latrans*); red fox (*Vulpes vulpes*); opossum (*Didelphis marsupialis*); woodchuck (*Marmota monax*); eastern cottontail rabbit (*Sylvilagus floridana*); several species of squirrels, mice, and voles; and numerous migratory songbirds.

The wildlife within the park contribute to the park's historic character and are necessary to fulfill the park's purpose of preserving and interpreting the history of the area, are key to the natural integrity of the park, and are considered significant park resources.

The selected alternative will modify and manage some of the park's vegetation to present views and spatial relationships in the cultural landscape that visually represents what would have existed in 1862. This will have both short-term adverse and long-term beneficial impacts to wildlife. Thinning vegetation will allow for an increase in understory development and diversity of species in the park. This will directly improve wildlife habitat in the park by increasing the variety of species and structural diversity. Thinning the vegetation will slightly reduce the food source for some birds and mammals in the park and reduce nesting and roosting cover for birds. Since this will occur slowly over time, the birds and mammals will likely find food sources and nesting cover from nearby trees in the park. These changes will have a minor adverse impact on wildlife.

Overall, the selected alternative will result in both a parkwide long-term beneficial impact and a long-term minor adverse impact on wildlife. The adverse effects of the selected alternative on wildlife will be minor and will not substantially alter the overall wildlife, wildlife habitat, or natural processes within the park or region. Therefore these adverse effects on wildlife will not diminish its role in fulfilling the park's purpose of preserving or interpreting the history of the area or the natural integrity of the park. Thus, the selected alternative will not impair wildlife resources because the modifications to vegetation will allow species and habitat to remain essentially unchanged.

VISUAL RESOURCES

About 90% of the Civil War battlefield where fighting took place is protected within the park. Protecting such a large portion of an original battlefield is uncommon among Civil War parks in the national park system, and this protection is essential to the unique visual character of the park. Much of the land that is now protected in the park underwent extensive changes from the time of the battle until the park was established in 1956. Much of the land that now constitutes the park was historically used for agriculture, raising livestock, and homestead sites. These land uses, along with practices of fire suppression and logging, have combined to alter the landscape and influence the character of the park relative to its historic appearance.

Visual resources on the battlefield are important in the visitor's understanding of the battle events. Visual resources include replica artillery; fencing; historic structures; and historic fields, roads, and trails. Visual resources are necessary to fulfill the park's purpose of preserving and interpreting the Battle of Pea Ridge and are key to the cultural integrity of the park.

The selected alternative includes some preservation, stabilization, and repair of extant features, which would improve visual understanding of the site. Large trees would be thinned Elk Mountain and at the Federal Trenches to open up historic views and lines of sight. The alternative would also focus on depicting the spatial qualities of the historic setting during the period of significance. This focus would provide more accurate depictions of the cultural landscape, which would improve visual resources of the park. Because of the many improvements, the selected alternative would have a parkwide long-term beneficial effect on visual resources.

Because visual resources will be improved and, therefore, will better contribute to fulfilling the park's purpose for current and future generations of visitors, the selected alternative will not impair visual resources.

Chapter 1. Introduction

Introduction

This document presents the Cultural Landscape Report and Environmental Assessment (CLR/EA) for Pea Ridge National Military Park (the park) in northwest Arkansas, the largest American Civil War battlefield west of the Mississippi. This CLR/EA presents detailed documentation of Pea Ridge's historical development, evaluation of existing condition, analysis of landscape characteristics, determination of contributing features, and treatment recommendations.

This work builds upon the numerous studies, investigations and documents that already exist for the park. These include the 2006 General Management Plan/ Environmental Impact Statement (GMP/ EIS), 2012 Long Range Interpretive Plan (LRIP), and Vegetation Management Plan (VMP) amongst others. Archeological studies include research and mapping prepared by historian Edwin Bearss. Other studies include the 1984 National Register of Historic Places nomination (NRHP), and numerous natural resource reports.

This CLR/EA is the primary document used to guide implementation of the GMP/ EIS preferred alternative. This CLR/EA will establish a preservation philosophy and a framework to guide treatment to enhance resource condition and visitor experience, support interpretive programming, and streamline compliance for implementation.

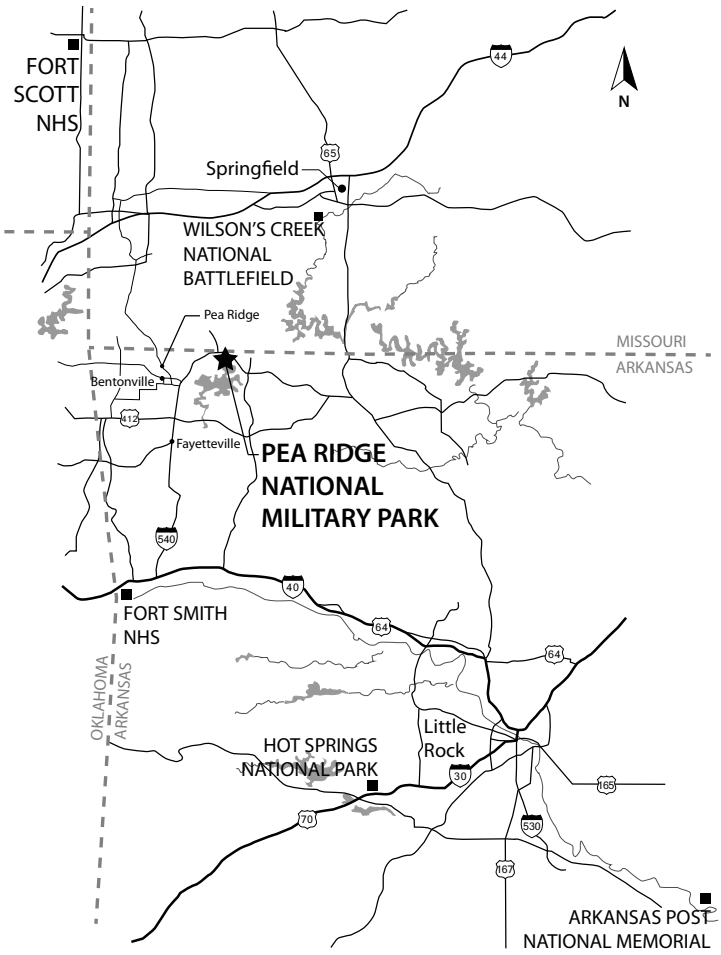


Figure 1-1. Pea Ridge National Military Park is near Pea Ridge, Arkansas, and fourteen miles northeast of Bentonville, Arkansas (Source: MB 2013).

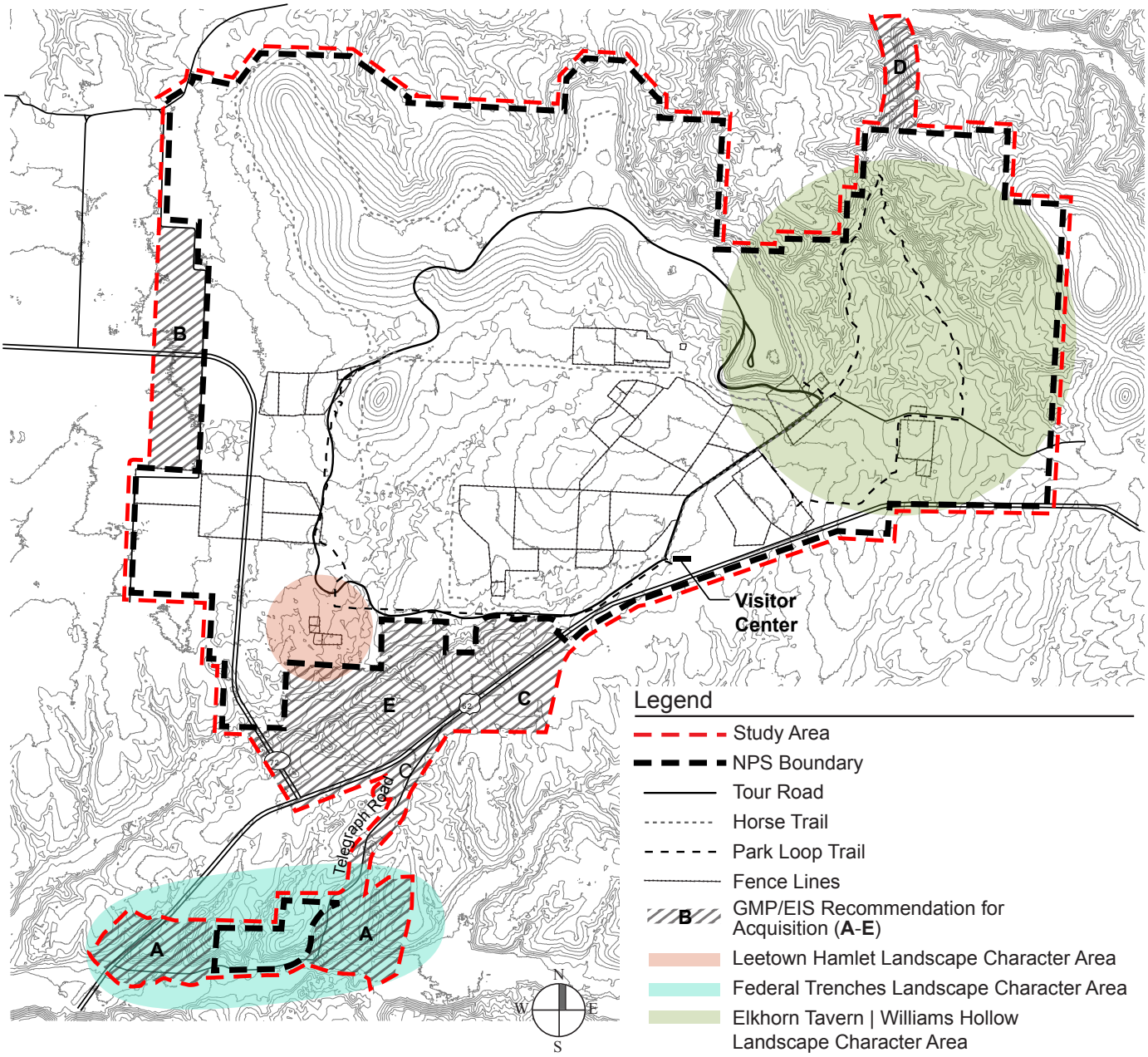


Figure 1-2. The study area encompasses the boundaries of the entire park as well as five areas adjacent to the park boundaries identified by the GMP/EIS for potential acquisition due to their importance during the Civil War battle. Three landscape character areas have features that distinguish them from the remainder of the study area. These are Leetown Hamlet, Federal Trenches, and Elkhorn Tavern/Williams Hollow (MB: 2013).

Study Area and Landscape Character Areas

Pea Ridge National Military Park (the park) is near Pea Ridge, Arkansas, and fourteen miles northeast of Bentonville, Arkansas (Figure 1-1.). In March of 1862, the Union Army of the Southwest led by Brigadier General Samuel Curtis defeated the Confederate Army of the West under the command of Major General Earl Van Dorn in a bloody two-day battle in this remote northwest corner of the state. This decisive victory permanently turned the tide of the Civil War west of the Mississippi, ensured that Missouri would remain in the Union, and allowed Union forces to take control of the lower Mississippi River.

Pea Ridge National Military Park was established on July 20, 1956, to commemorate the Battle of Pea Ridge, and to preserve the site of the battle, the largest Civil War engagement west of the Mississippi River. This 4,300-acre park encompasses nearly ninety percent of the actual battlefield. The park's numerous resources include archeological sites, historic sites, structures, collections and cultural landscape features associated with the battle and the agrarian community once found at Pea Ridge.

Pea Ridge National Military Park is situated in the foothills of the Ozark Mountains. Elkhorn Mountain defines the northern portion of the park. It is the highest point in the park with the remainder of the land to the south on a high plateau. The park is within portions of Township 20 and 21 North within the Ranges of 28 and 29 West in the Garfield and Pea Ridge quadrangles. U.S. Highway 62 extends through the park, but is slated for realignment in 2015. Arkansas Highway 72 extends into the park near its western edge.

Pea Ridge National Military Park's national significance is recognized by its listing in the National Register of Historic Places (NRHP) of Historic Places due to its association with the Civil War and efforts to commemorate that period in our nation's history. The park's period of significance is 1862 to 1865, and includes the dates of March 7 and 8, 1862, when Union and Confederate troops clashed resulting in a Union victory. In the 1960s, as part of the Mission 66 program, the National Park Service (NPS) completed facilities for the park. The visitor center, Tour Road, overlooks and interpretive stops opened to the public in 1963.

The study area (Figure 1-2) encompasses the boundaries of the entire park as well as five areas adjacent to the park boundaries identified by the GMP/EIS for potential acquisition due to their importance during the Civil War battle. The main section of the park is generally located north of U.S. Highway 62, encompassing the majority of the battleground. A second, smaller discontinuous parcel is located to the south along the bluffs of Little Sugar Creek where Curtis' troops constructed trenches in anticipation of an assault from the south.

Three landscape character areas have been identified as having features that distinguish them from the remainder of the study area (Figure 1-2.). These are Leetown Hamlet, Federal Trenches, and Elkhorn Tavern/ Williams Hollow.

Leetown Hamlet

This landscape character area encompasses the archeological landscape of Leetown Hamlet, a small settlement that played an important role as a field hospital during the Battle of Pea Ridge. The town site, immediate surroundings, and Leetown Cemetery are within this landscape character area. The limits are generally described as being south of Old Leetown Road and west of Lee Creek.

The Federal Trenches

This landscape character area encompasses the southern, discontiguous parcel of the park where extant earthworks remain from the Battle of Pea Ridge. These are the only features built as part of the military battle. This area includes the parcel within the park boundaries, and two parcels on either side identified by the GMP/EIS as potential acquisitions due to their significance to the battle.

Elkhorn Tavern and Williams Hollow

The Elkhorn Tavern / Williams Hollow landscape character area is in the northern portion of the study area. It generally includes Williams and Cross Timber hollows, Telegraph Road and the tanyard, Elkhorn Tavern and its immediate surroundings as well as the Clemens' House site and fields, and Huntsville Road. This area served as Confederate headquarters, and was the setting of several battles on March 7 and 8, 1862.

Project Purpose and Need

Project Purpose

The purpose of this project is to provide guidance for preserving the cultural landscape of Pea Ridge National Military Park as the historic site of the Battle of Pea Ridge. This project will include guidance on preserving the character of the agrarian and wooded landscape that shaped the course of the battle and the Civil War.

This project will document the historic and current physical conditions of the site of the Battle of Pea Ridge. It will identify landscape characteristics, patterns and features that convey the historical significance and character of the cultural landscape.

This CLR/EA will provide guidance on preserving features and places such as the Federal Trenches and Leetown Hamlet, and will address appropriate modifications to existing visitor facilities such as the overlooks and Tour Road.

This project will guide the long-term stewardship of Pea Ridge National Military Park for the enjoyment of current visitors and future generations by improving cultural resource protection, and providing a cohesive, unified visitor experience.

Project Need

The proposed project addresses the need to preserve the park's historically significant features. The project is needed to supplement current baseline information. The project will generate the needed baseline documentation, supplement existing historical, archeological and natural resource data, provide recommendations for future study, and provide guidance for treatment and resource protection.

The proposed project is needed to document the changes to the cultural landscape over time, to transfer knowledge, and to provide holistic and integrated guidance for the long-term preservation and stewardship of the cultural landscape. The project is also needed to connect cultural landscape maintenance to other resource management plans and projects.

Project Goals

This CLR/EA addresses the following goals.

- Document the battlefield resources and evaluate their current physical condition. Document resource threats and ensuing impacts including invasive plants, loss of spatial patterns, erosion or other archeological threats.

- Document resources of the Trail of Tears to support their interpretation through collaborative planning with associated tribal representatives. Trail of Tears resources include the trail itself and a possible campsite along the trail at Ruddick's field. The trail is part of the Trail of Tears National Historic Trail and is managed by the park as a cultural resource.
- Consult with other federal and state agencies and natural resource experts to confirm previous treatments to achieve a desired landscape condition and provide guidance on completing treatment and planning for long term maintenance.
- Provide a synthesis/summary of existing archeological information and make recommendations for further investigation.
- Explore enhancing interpretation at archeological sites: Federal Trenches, Leetown Hamlet, and Clemens' House site and field. Consider introducing fences and visual cues to protect resources and to provide a cohesive, unified visitor experience.
- Identify opportunities for accommodating universal access across the site, especially in the Elkhorn Tavern area.
- Provide detailed guidance for smaller landscape component areas: Federal Trenches, Leetown Hamlet and Cemetery (including the Mayfield house), Winton Springs and Winton Springs House, Ford Farm and Ford Cemetery, east overlook, Foster's Farm and Fields (including Sturdy Cabin), Elkhorn Tavern, and Clemens' Farm.
- Establish a set of guiding principles for reclaiming the road corridor once U.S. Highway 62 is moved to the southern edge of the park. Establish general parameters for removal of the existing parking area and sidewalks, and addition of new parking at the visitor center, Elkhorn Tavern, and new horse trailer entry at the southwest corner of the park.
- Integrate CLR/EA existing conditions with service-wide Facility Maintenance Software System (FMSS) "Maintained Landscape" and "Maintained Archeological Site" data; generate hierarchy and work orders that can be entered into FMSS to implement the selected alternative at the conclusion of the project.

Methodology

The CLR/EA was conducted at a thorough level of investigation, documentation for historical research, existing condition assessment, landscape analysis, and treatment recommendations. The thorough level research methodology, as defined by the NPS, focused on the use of select documentation of known and presumed relevance, including primary and secondary sources that are easily available.[1.1]

The existing condition investigation was conducted according to best practices. A review of readily available documentation was undertaken. It included information from Pea Ridge National Military Park, the National Park Service's Midwest Regional Office (NPS-MWRO), and the National Park Service's Midwest Archeological Center (NPS-MWAC). This review included planning documents, administrative reports, technical reports, natural resource studies, and correspondence. Review of historical documentation included the NRHP nomination for Pea Ridge National Military Park, and historic drawings, photographs, and correspondence available from primary and secondary sources.

1.1 Page, Robert R., Cathy A. Gilbert, and Susan A. Dolan. 1998. *A Guide to Cultural Landscape Reports: Contents, Processes and Techniques*. Washington D.C.: National Park Service.

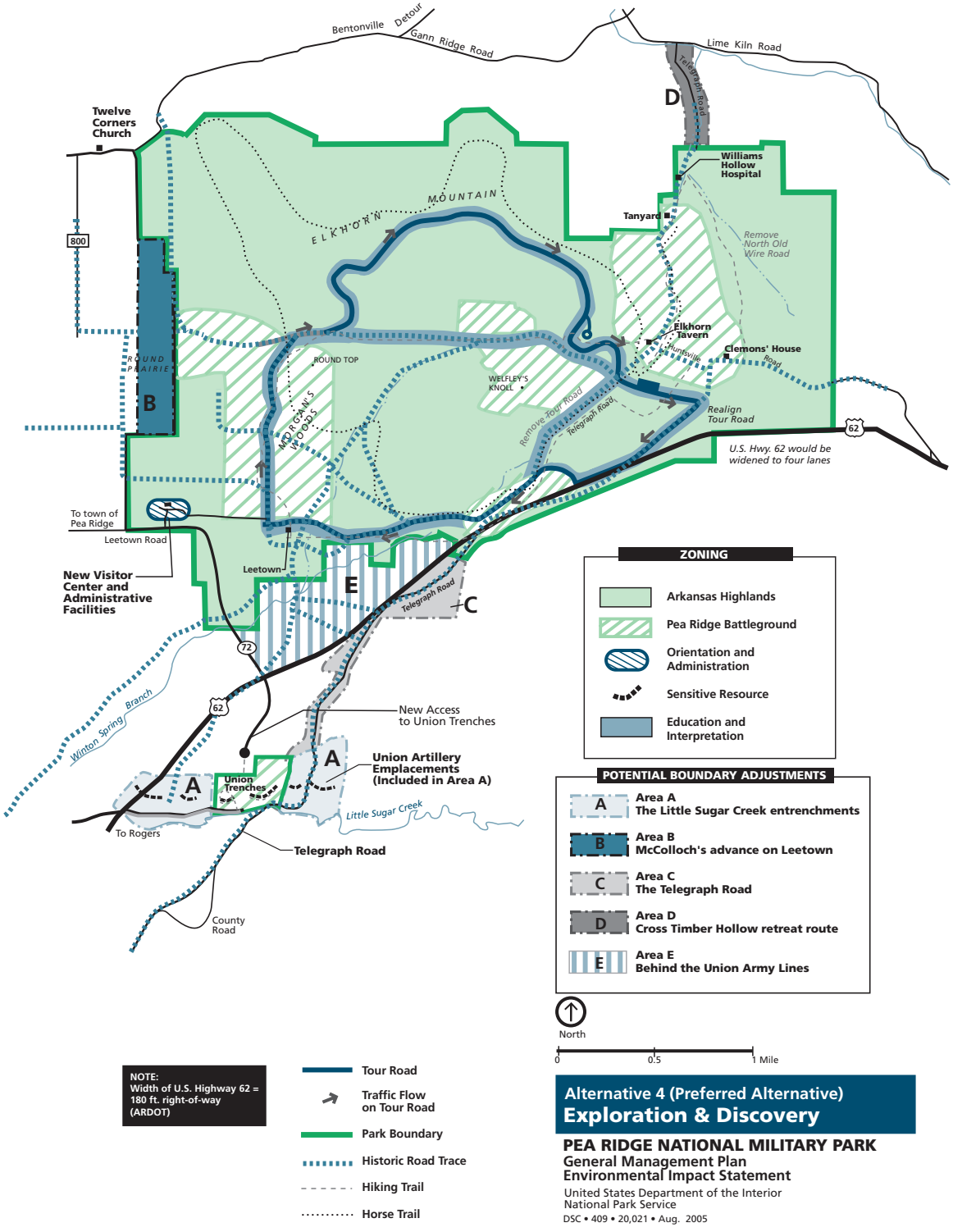


Figure 1-3. In addition to management policies, Pea Ridge National Military Park is guided by the preferred alternative of the General Management Plan/Environmental Impact Statement, (Source: 2006 GMP/EIS).

Background information provided by the park as a GIS database was used to prepare the CLR/EA drawings. Site investigations in June and October 2013, documented existing conditions. Archeological research focused on review of previous archeological investigations performed within the park, including those undertaken by Rex Wilson in the 1960s, and others from 2000 to 2013. The CLR/EA did not include any additional archeological investigations.

This CLR/EA has been prepared in compliance with the National Environmental Policy Act (NEPA) of 1969, and implementing regulations 40 CFR Parts 1500-1508 and National Park Service (NPS) Director's Order (DO) – 12 and Handbook, Conservation Planning, Environmental Impact Analysis, and Decision-making. In addition, this CLR/EA was prepared in compliance with the requirements of Section 106 of the National Historic Preservation Act (NHPA), in accordance with the Advisory Council on Historic Preservation's (ACHP) regulations implementing section 106 (36 CFR Part 800.8, Coordination with the National Environmental Policy Act).

Park Purpose and Significance

Pea Ridge National Military Park was established to preserve and protect the landscapes and resources associated with the Battle of Pea Ridge. The park interprets the battle as an integral part of the social, political, and military history of the Civil War, and provides roads, trails, markers, buildings and other facilities for the care and accommodation of visitors as necessary.

The park encompasses nearly ninety percent of the combat sites of the Battle of Pea Ridge, a battle that was significant for a Union victory that prevented the Confederacy from gaining physical and political control of Missouri. Union control of Missouri subsequently provided a secure logistical base to embark upon a campaign to control the lower Mississippi River Valley. The battle was the first major engagement outside Indian Territory where Cherokee troops fought for the Confederacy. The Federal Trenches above Little Sugar Creek are the only constructed features remaining from the battle. They are remnants of the first entrenchments dug in the Civil War's Trans-Mississippi theater of operations.

Management Philosophy

Management Summary

The management of Pea Ridge National Military Park is guided by the 2006 General Management Plan and Environmental Impact Statement (GMP/EIS) that provides measures for resource protection, visitor use and park operations. Additional guiding documents include the 2012 Long Range Interpretive Plan (LRIP), 2011 List of Classified Structures update (LCS) and 2008 Cultural Landscape Inventory (CLI). A Vegetation Management Plan (VMP) guides the management of vegetation park-wide.

- The GMP/EIS organized the park into five management zones (Figure 1-3.). The Pea Ridge Battleground zone encompassed about twenty-five percent of the park and focused on preserving the historic battlefield landscape. The Federal Trenches is within the Sensitive Resources management zone to provide this area with the highest level of resource protection. Elkhorn Tavern and Tour Road are within the Education and Interpretation zone. The Orientation and Administration zone included the visitor center, and maintenance and administrative facilities. The remainder of the park in within the Arkansas Highlands zone. A goal of the GMP/EIS is to provide visitors with a broad range of experiences including opportunities to immerse themselves in key battle areas

to understand the history of Pea Ridge. Visitors would also have choices in the type, intensity and duration of their experiences as guided by interpretive media and programs.

- The LRIP outlined recommendations for future interpretive services, facilities and media to provide a high quality interpretive experience with actions to occur within seven to ten years of the plan's approval. The LRIP identified six primary interpretive themes associated with the Battle of Pea Ridge and one theme to capture the Trail of Tears events. The primary interpretive goal and thematic focus is to immerse the visitor into the Battle of Pea Ridge with different levels of experience. The LRIP supports retaining the Tour Road but recommends reversing direction of travel and adding Little Sugar Creek and the Federal Trenches as an interpretive stop. The LRIP supports the relocation of U.S. Highway 62, introduction of a fee station, increased parking and pedestrian access to Welfley's Knoll, and potential elimination of the west overlook.
- The LCS identified thirteen features that must be preserved/maintained. Of these, eleven were determined to be eligible for listing in the NRHP including three built outside the 1862 to 1865 period of significance. Elkhorn Tavern and Ford Cemetery are noted to be managed as historic resources pending a final Determination of Eligibility. The LCS also noted a period of significance of 1956 to 1963, that is likely associated with park facilities designed and constructed as part of NPS's Mission 66 program.
- The CLI documented topography, views, circulation, structures and land use associated with the cultural landscape of the park, and noted that the historic site must be preserved and maintained. [1.2]

Management Issues

The following summarizes management issues identified during the existing condition evaluation and field investigations.

External Impacts

The population of the Bentonville-Rogers-Pea Ridge area surged in the 1990s. Although growth has slowed somewhat, the increasing population in the region remains a catalyst for opportunities and concerns at the park.

- Regional population growth affects visitor use and experiences. Increased traffic impacts the park's aesthetic values and visitor safety. There is also potential for increased visitor numbers and on-going requests from adjacent residents for new amenities within the park.
- Development at park edges is on-going. In some places, adjacent development is beginning to diminish the visitor experience as housing and facilities are now appearing in viewsheds that were previously open. This development negatively impacts the historic setting of the Pea Ridge battlefield.
- Related infrastructure and utility needs from increased population is negatively impacting the park landscape. Proposals for utility corridors near the park will directly impact the views of the adjacent rural landscape from the park.
- Arkansas Highway 72 splits the battlefield into two sections, making the west portion inaccessible to park visitors and difficult for park staff to manage. The highway is visible from within the park, diminishing the integrity of the battlefield.

1.2 The CLI identified Elkhorn Tavern as non-contributing. This CLR/EA treats Elkhorn Tavern as a contributing feature pending further evaluation. The LCS and CLI note the building to be preserved and maintained as a historic resource.

U.S. Highway 62 Mitigation

Due to increased traffic in the Pea Ridge area and the desire of the NPS to relocate U.S. Highway 62 outside the park boundary, the highway will be moved south of the park in 2015. The park, Federal Highway Administration (FHWA) and the Arkansas State Highway and Transportation Department (AHTD) agreed to shift the highway alignment to the south edge of the park.

- The environmental assessment for the highway relocation is complete. An environmental assessment is currently underway for mitigation work associated with the movement of the highway (Tour Road changes, entrance and new parking).
- This CLR/EA provides guidance on reclaiming the existing road corridor and on modifications associated with parking and access within the park.
- The relocation of the highway offers opportunities to better protect sensitive cultural resources including portions of the battlefield, archeological sites associated with General Curtis' headquarters, and Telegraph Road.
- In 2013, MWAC conducted preliminary archeological investigations of the four proposed highway realignments. Several features were revealed in some of the alternative road alignments.[1.3]

Potential Threats to Cultural Resources

Pea Ridge National Military Park has the potential to reveal important information about the Civil War through the extensive archeological resources within the park.

- These underground resources may be threatened by erosion, burrowing animals, overgrown vegetation, and occasional illegal looting.

Visitor Issues / Experiences

Most visitors are interested in the Civil War history, however recreational use within the park is increasing. There is a need for better and safer visitor experiences, and ways for visitors to connect with all aspects of the cultural landscape. Outside groups have requested expanding recreational opportunities within the park. There is also a need to address current and potential future conflicts between user groups.

- Many battlefield sites and associated areas are reached via the Tour Road, however several others are difficult to reach.
    - There is limited visitor access to the Federal Trenches. As a discontiguous parcel, park visitors often do not visit the site. Once there, the trenches are only reached by a steep trail. It is not possible to adapt the site to be universally accessible if the parking remains in its current location due to the steep terrain.
    - The tanyard site is only reachable by trail and the rutted road of Telegraph Road north of Elkhorn Tavern. This area is not currently interpreted for visitors.
    - The area of General Curtis' headquarters is not readily identifiable.
- A better wayfinding system for visitors is needed, particularly for those on foot and horseback.
    - A clear system with routes, directional and informational signs, and visitor information is essential for a full visitor experience.
    - Interpretation of the historic resources should be part of this system.

1.3 De Vore, Steven L. "Intensive Archeological Inventory with Metal Detectors and Shovel Testing of Four Alternative Actions for the Federal Highway Administration's Park Mitigation Actions Associated with the Proposed U.S. Highway 62 Rerouting Construction Project at Pea Ridge National Military Park, Arkansas: A preliminary Summary of Results." National Park Service, Midwest Archeological Center, 2013.

- The park has received requests from outside groups for more trail use and additional trails for equestrians. In addition, conflicts between user types occur. These include those between bicyclists and equestrians, and between trail users and special events. The park does not have a current trail plan.
- The park has received requests from individuals and groups to install commemorative monuments within the park.
- Horseback riding activities are highly popular. Pressure from the community to increase this use has grown.

Park Boundary

The GMP/EIS identified five areas outside the current park boundaries for consideration for acquisition.

These parcels identified by the GMP/EIS for acquisition are included within the CLR/EA study area (Figure 1-2 and Figure 1-3.).

- Parcel A is an area where extant trenches remain from the Battle of Pea Ridge.
- Parcel B would extend the park boundary further to the west to include more of the historic battlefield.
- Parcel C would include a two-mile segment of Telegraph Road to the south of the park boundary and would connect the Federal Trenches with the rest of the park.
- Parcel D, north of Elkhorn Tavern and Williams Hollow, would encompass a 1/4 mile corridor along Cross Timber Hollow and Telegraph Road to its junction with Lime Kiln Road.
- Parcel E, approximately 200 acres of land south of the existing park boundary and extending to U.S. Highway 62, would encompass part of the Union Army's supply area.

Determination of Contributing Features and Extent of Historic Resources

A determination of the significance of many features including structures, roads and remnants is needed. In addition, the park's administration and visitor facilities were built in the 1960s, as part of the Mission 66 program. An understanding of their significance is needed. Other sites outside the park boundary may have historical relevance to the Battle of Pea Ridge.

- Determination of contributing versus non-contributing is needed for known remnant structures and features. For places such as Ford Cemetery a determination of whether or not features date to the period of significance or if they are of later construction is needed.
    - The park has many roads and trails, some of which may date to the time of the battle. A determination is needed to identify which roads and trails are significant and which may be removed.
    - Other ancillary features such as wells, walls and foundations exist and may or may not contribute to the park's significance.
- Elkhorn Tavern was rebuilt after the Civil War, presumably on the original foundation with some original material. In the 1960s, the building was rehabilitated by the NPS to reflect its appearance in the 1880s.
- Three monuments were added to the park to commemorate the Union and Confederate soldiers and leaders. Two were installed in the 1880s, as part of the reunion of veterans from both sides. Another was installed in 1935.
    - The Monument to the Brave Confederate Dead and the Monument to the Reunited Soldiery are in the Elkhorn Tavern area.
    - The U.S. Army Headquarters Monument is located along U.S. Highway 62 and marks the site of the Union army headquarters.

- As part of the establishment of Pea Ridge National Military Park, the NPS built a number of structures and buildings between 1960 and 1965. These included the Tour Road with parking and overlooks, maintenance and housing areas, and a visitor center. Many have remained relatively unchanged, including the east overlook. The visitor center was extensively remodeled in 2000.
- Two places near the park are historically connected to the battle but are outside the park boundaries.
    - Dunagin's Farm was the site of the February 1862, battle between General Curtis's Union Army and Confederate troops. This battle led to the Battle of Pea Ridge in March 1862. The farm remains relatively the same parcel of land as that of 1862, and is in private ownership. There is concern that it could be sold and redeveloped in a manner not conducive to interpreting its important Civil War history.
    - Telegraph Road from the southern park boundary to the Federal Trenches is thought to be the same route of the historic 1830s, road. Most of the road is open to public use, except for the southernmost portion on private property.
- Telegraph Road, north of the park boundary, is thought to follow the same route as the historic 1830s, road that served as a travel route for Confederate soldiers and for Trail of Tears' refugees.

Guidance Needed for Appropriate Resource Protection and Further Study

Guidance is needed to appropriately preserve extant features and the physical landscape of the Battle of Pea Ridge. Investigations could also extend to understand the site's pre-war condition to better understand its appearance prior to the battle. Recommendations for additional or further study related to archeological resources or other topics is needed. Guidance for the appropriate treatment of cultural resources is needed.

- Detailed recommendations for the preservation and management of the trench and the associated landscape of the Federal Trenches are needed. This could include an earthworks plan similar to those developed for other earthen military fortifications.
- On-going archeological investigations and surveys will be instrumental in revealing the historic record of the battle. These could also include investigations into the site prior to its role in the Civil War.
- The visitor center is located in a visible location immediately adjacent to important areas of the battle. The GMP/EIS recommends a new location on the west edge of the park.
- The NRHP nomination was prepared in 1984, for the entire park, however it does not include all aspects or features of the cultural landscape that contribute to the park's significance. The CLI completed in 2008 provided additional and more specific information that the NRHP nomination lacked. The NRHP is currently being updated and will be completed FY 2015. Additionally, the Arkansas SHPO has recommended the park be evaluated for potential National Historic Landmark (NHL) designation.[1.4]

1.4 NPS-MWPO

Sustainability and Climate-Friendly Solutions

Opportunities exist for Pea Ridge National Military Park to adopt policies and solutions conducive to sustainability and that address climate change.

- Park staff is participating in the Clean Cities Coalition, and the Climate Friendly Parks program.
- Measures that address sustainability should be integrated with the preservation of cultural resources to ensure resources are protected.
- Climate change is already impacting vegetation and wildlife. Measures to address present-day and future climate change will need to be accomplished in a manner that protects cultural resources.

Related Laws, Regulations, Policies, Orders and Planning Documents

Several guiding laws and policies, as well as previous plans and research documents, provide background and management information for this CLR/EA. Relevant laws, policies, and plans are described below.

Guiding Laws and Policies

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 a productive harmony between human beings and the physical environment for present and future generations. NEPA provides 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. NEPA also requires that each agency makes that information an integral part of its decision-making process. In addition, NEPA 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 Council on Environmental Quality (CEQ) (40 CFR 1500-1508).

National Historic Preservation Act of 1966, as Amended (NHPA)

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 that are eligible for listing on, National Register of Historic

Places (NRHP) must be taken into account in planning and operations. Any property that may qualify for listing on the NRHP must not be inadvertently transferred, sold, demolished, substantially altered, or allowed to deteriorate.

Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties. The Advisory Council on Historic Preservation (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.

In addition to considering the effects of their undertakings on historic properties, Section 110 of the NHPA requires federal agencies to establish a historic preservation program to identify and protect historic properties under their management or control. The plans must include a process for evaluating historic properties for listing on the NRHP.

NPS Organic Act of 1916

By enacting the NPS Organic Act of 1916, Congress directed the U.S. Department of the Interior and 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 United States code [USC] section 1).

Impairment is an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values.[1.5] Whether an impact meets this definition depends on the particular resources 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. An impact would be less likely to constitute an impairment if it is an unavoidable result of an action necessary to preserve or restore the integrity of park resources or values and it cannot be further mitigated.

NPS Management Policies 2006

NPS Management Policies 2006, provides guidance for all management decisions, including decisions related to cultural resources. Cultural resources, including cultural landscapes and historic structures, are addressed in Section 5, which states the NPS cultural resources management program involves "…stewardship to ensure that cultural resources are preserved and protected, receive appropriate treatments (including maintenance) to achieve desired conditions, and are made available for public understanding and enjoyment." The policy goes on to state that "Each park's resource stewardship strategy will provide comprehensive recommendations about specific actions needed to achieve and maintain the desired resource conditions and visitor experiences for the park's cultural resources."[1.6]

Director's Order-12 (2001, rev. 2011) and Handbook (2001)

DO-12 (NPS 2011) and Handbook (NPS 2001) provides the instruction or procedures by which the NPS complies with NEPA and for practicing environmental impact

1.5 National Park Service. Management Policies, Department of the Interior. National Park Service. Washington D.C.
1.6 National Park Service. Management Policies, Department of the Interior. National Park Service. Washington D.C.

assessment and resource conservation. DO-12 and Handbook provide the framework for the NPS's approach in environmental analysis, public involvement, and making resource-based decisions. The order and handbook require a full and open evaluation, interdisciplinary approach, and technical and scientific analysis of management decisions.

Director's Order-28: Cultural Resource Management

DO-28 (NPS 2002) elaborates on the existing laws for cultural resources including, but not limited to, the 1916 NPS Organic Act, NPS Management Policies 2006, and NHPA. DO-28 offers guidance in applying the laws and regulations regarding cultural resource management to establish, maintain, and refine park cultural resource programs.

Executive Order 11593, "Protection and Enhancement of the Cultural Environment"

Executive Order (EO) 11593 mandates that all agencies 1) compile an inventory of the cultural resources for which they are the trustee, 2) nominate all eligible government properties to NRHP, 3) preserve and protect their cultural resources, and 4) ensure that agency activities contribute to the preservation and protection of nonfederally owned cultural resources.

Executive Order 11990, "Protection of Wetlands"

EO 11990, "Protection of Wetlands" is an order to avoid adverse impacts associated with the destruction or modification of wetlands. The order requires agencies to "take action to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agencies' responsibilities."[1.7] The order applies to acquisition, management, and disposition of federal lands and facilities construction and improvement projects that are undertaken, financed, or assisted by federal agencies, and federal activities and programs affecting land use.

2011 Guidance for Nonimpairment Determinations and the NPS NEPA Process

New guidance for nonimpairment determinations was approved by the NPS in September 2011. The new guidance states that nonimpairment determinations will only be required for the preferred alternative in NEPA documents and that the determination will be appended to the decision document (FONSI or Record of Decision (ROD)) (previously included in the analysis for each resource area). The new guidance will be included in the upcoming revised DO-12 Handbook. Based on the new guidance, the nonimpairment determination will be appended to the decision document for this EA.

2006 GMP/EIS, 2011 LRIP, VMP

In addition to NPS management policies, Pea Ridge National Military Park is guided by the GMP/EIS (Figure 1-3), including the preferred alternative prepared in 2005. The park is also guided by management strategies and priorities, the Long Range Interpretive Plan (LRIP), and the Vegetation Management Plan (VMP).

1963 Master Plan

The 1963 master plan guided the development of visitor, administrative and maintenance facilities for Pea Ridge National Military Park. All existing NPS facilities were

1.7 May 24, 1977, 42 Federal Register [FR] 26961

initially built between 1960 and 1965, in compliance with the 1963 master plan. The plan compiled with the then current-day NPS standards and policies, but did not include NEPA compliance as it was not required at the time.

The 1963 master plan articulated several objectives that remain relevant today. These include restoring and maintaining fields and woodlands as they were in 1862, and preserving Elkhorn Tavern, foundations of Leetown buildings and structures, the trenches and other appurtenances of 1862. In addition, the 1963 master plan aimed to establish and maintain the system of historic trace roads that existed in 1862. Development of new facilities was restricted to ensure the preservation of the battlefield.

1983 Visitor Use and Development Plan

The Visitor Use and Development Plan proposed an addition to the visitor center to provide adequate space for visitor use and operations, removal of modern features at Elkhorn Tavern to reflect the historic landscape, and improved access to the Federal Trenches. The addition to the visitor center was completed in the 1990s. The other actions approved in that plan have not been implemented.

Transportation Study

In conjunction with the GMP/EIS, a transportation study was prepared to evaluate traffic conditions within the park and on the park boundaries relating to park access, safety, visitor use, visitor experience, and interpretation.

2005 Fire Management Plan

The Fire Management Plan (FMP) was developed in 2005, and outlined a detailed program of actions to be taken by the park to meet the fire management goals for the area. The fire management program at the park was developed to balance the park's goals with the goals of the National Fire Plan (USDA and USDOI 2000). Park goals are found in the GMP/EIS. Resource management objectives determined whether fire may be used as a tool to manipulate vegetation and how fire will be managed.

Heartland Exotic Plant Management Plan

The Heartland Inventory and Monitoring Network (HTLN) is part of the nationwide Inventory and Monitoring Program of the NPS. HTLN parks in eight states (Arkansas, Indiana, Iowa, Kansas, Minnesota, Missouri, Nebraska, and Ohio) proposed the establishment of an exotic plant management team (EPMT) action plan to control exotic plants cooperatively. This would support restoration of native vegetation in several ecosystem types associated with tallgrass prairies, eastern deciduous forests, interior highlands, and the Mississippi floodplain within the parks. The approach used a cooperative/collaborative program to achieve economy of scale that augments exotic plant programs existing in the parks, monitors effects for adaptive management, and centralizes data management for parks. The program would also require the allocation of resources to target species and locations, where success is most feasible and critical resources (i.e., threatened species, restoration areas, and significant cultural landscapes) are most threatened. The EPMT plan would be proactive in the treatment of exotic invasive species before threats become severe.

Environmental Assessment, Avoca to Gateway, NEPA Study (U.S. Highway 62)

The Arkansas State Highway and Transportation Department (AHTD) has proposed to widen U.S. Highway 62 from two lanes to four lanes from Avoca to Gateway, including the reconfiguration of the U.S. Highway 62 intersection with Arkansas Highway 37 in Benton County, Arkansas. The purpose of the improvements is to provide increased capacity, alleviate traffic congestion, and improve safety. A portion of U.S. Highway 62 is along the southern boundary of the park and would be rerouted as part of this project. The new section would be rerouted south of the existing U.S. Highway 62 to avoid the park (south of Avoca and the Arkansas-Missouri railroad line). The existing U.S. Highway 62 would remain a two-lane road and would be used as the entrance route for visitors to the park.

Environmental Assessment Impact Topics

Scope of the Report

This Environmental Assessment (EA) has been prepared to evaluate potential effects on environmental, socioeconomic, and cultural resources from the proposed treatment alternatives and a no action alternative. The CLR/EA provides the decision-making framework that:

1) analyzes a reasonable range of alternatives to meet objectives of the proposal;

2) evaluates potential issues and impacts to the park's resources and values; and

3) identifies mitigation measures to lessen the degree or extent of these impacts.

Impact topics evaluated in detail in this EA are cultural resources, vegetation, visual resources, visitor experience, and park operations. Some impact topics were dismissed because the project would result in no more than minor effects. No major effects were identified as a result of implementing the proposed alternatives in an initial analysis of effects.

The public, regulatory agencies, and other stakeholders have had an opportunity to comment on this CLR/EA. Comments received will be considered in the final evaluation of effects.

Scoping

Scoping is an early and open process to determine the breadth of issues and alternatives to be addressed in an environmental assessment. Park staff and resource professionals of the NPS Midwest Regional Office conducted internal scoping. This interdisciplinary process defined the purpose and need, identified potential actions to address the need, determined the likely issues and impact topics, and identified the relationship of the proposed action to other planning efforts at the park.

As part of tribal consultation, scoping letters were sent to federally recognized tribes for consultation with the park on June 3, 2013, to determine if any ethnographic or other resources are in the project area and to inquire whether local tribes wanted to be involved in the environmental compliance process. The tribes and governments that received letters were:

- Absentee Shawnee Tribe
- Caddo Nation
- United Keetoowah Band of Cherokee Indians
- Shawnee Tribe of Oklahoma
- Quapaw Tribe of Oklahoma
- The Osage Nation
- Muscogee (Creek) Nation of Oklahoma
- The Chickasaw Nation
- Cherokee Nation of Oklahoma

Following its review of the EA made available for public comment, the Quapaw Tribe of Oklahoma responded on June 23, 2014 with its determination that the preferred alternative would be unlikely to adversely impact cultural resources or human remains. No response was received from other tribes. The park will continue to consult with tribes to determine the effects of the action alternatives on eligible historic resources and to develop mitigation for impacts on cultural resources, if any, from the preferred alternative.

The NHPA (16 USC 470 et seq.) requires the consideration of impacts on cultural resources, either listed in or eligible to be listed in, the NRHP. Park staff sent a scoping letter to the Arkansas State Historic Preservation Officer (SHPO) on June 3, 2013, to solicit input on issues of concern. Following its review of the EA made available for public comment, SHPO responded on June 25, 2014 with its determination that the preferred alternative would have a minimal impact and so had no objection to implementing the alternative. The park will continue to coordinate with SHPO to determine the effects of the action alternatives on eligible historic resources and to develop mitigation for impacts on historic features, if any, from the preferred alternative.

The park also sent a scoping letter on June 3, 2013, to the U.S. Fish and Wildlife Service (USFWS) to solicit input on issues of concern. The USFWS Arkansas Field Office responded to the scoping letter in a letter dated September 5, 2013, concurring with the NPS determination that the proposed CLR/EA would have no effect on listed species. In accordance with Section 7 of the Endangered Species Act, the park initiated consultation with the USFWS on May 1, 2014, with a letter that included the park's determination that the proposed CLR/EA would have no effect on listed species. The park will also forward this CLR/EA to the USFWS for review and comment. The USFWS will review this CLR/EA to determine if they concur with the park's findings of effect, and whether additional conservation measures are needed to protect listed species.

Issues and Impact Topics

An important part of the decision-making process is seeking to understand the consequences of making one decision over another. This CLR/EA identifies the anticipated impacts of possible actions on certain resources, park visitors, and neighbors. The impacts are organized by topic, such as "vegetation" or "public health and safety." Impact topics serve to focus the environmental analysis and ensure the relevance of impact evaluation.

Impact topics were developed from the questions and comments brought forth during scoping; site conditions; staff knowledge of the park resources; and any laws, regulations, policies, or orders applicable to the project. Some topics were dismissed from detailed analysis because the resource is not present in the study area, or because the action alternatives would either have no effect on the impact topic, or the effects would be negligible to minor. Some impact topics were retained even though the effects of the alternatives would be negligible to minor because the impact topic is a particularly sensitive resource, or was identified as an important topic in scoping.

Impact Topics Selected for Analysis

The issues identified during scoping that are evaluated in this CLR/EA are potential effects on the following resources (Table 1-1.).

- Cultural landscapes, archeological sites, and historic structures/objects;
- Vegetation;
- Wildlife;
- Visual resources;
- Visitor experience;
- Park operations.

Table 1-1. The retained impact topics, the reasons for retaining the topic, and relevant laws, regulation, and policies.

Table 1. Impact Topics Retained And Relevant Laws, Regulations, And Policies

Impact Topic	Reasons for Retaining Impact Topic	Relevant Laws, Regulations and Policies
Cultural Landscapes, Archeological Sites, and Historic Structures/ Objects	The treatment recommendations for cultural landscapes are key issues of the CLR/EA. Because implementing one or more of the alternatives may result in changes to cultural landscapes and historic structures and because ground disturbances may affect archeological sites (i.e., disturb buried artifacts) this topic was retained for further analysis.	Sections 106 and 110 of the NHPA; ACHP implementing regulations regarding the "Protection of Historic Properties" (36 CFR 800); DO-28: *Cultural Resource Management Guidelines; NPS Management Policies 2006; Secretary of the Interior's Standards for the Treatment of Historic Properties*; NEPA; *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes* (1996); *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation*; DO-28A: *Archeology* (NPS 2004)
Vegetation	Vegetation disturbance could occur and the introduction of invasive nonnative species is possible from ground-disturbing activities. Because the alternatives have the potential to affect vegetation, this topic was retained for further analysis.	NPS Organic Act; NPS *Management Policies 2006*; Resource Management Guidelines (NPS-77); Federal Noxious Weed Control Act; EO 13112, "Invasive Species" (NPS 1999)
Wildlife	Changes in vegetation may alter wildlife habitat and could affect wildlife in the project area. Because the CLR/EA alternatives have the potential to affect wildlife habitat, this topic was retained for further analysis.	NPS Organic Act; enabling legislation; NPS *Management Policies 2006*; NPS-77
Visual Resources	Modifications to the cultural landscape proposed in the CLR/EA alternatives may alter the views for park visitors; therefore, this topic was retained for further analysis.	NPS *Management Policies 2006*
Visitor Experience	The CLR/EA alternatives could affect overall visitor understanding of the park, including interpretive and educational opportunities and, therefore, this topic was retained for further analysis.	NPS Organic Act; NPS *Management Policies 2006*
Park Operations	Park operations and maintenance activities could be affected by the CLR/ EA alternatives; therefore, this topic was retained for further analysis.	NPS *Management Policies 2006*

Impact Topics Dismissed from Further Consideration

The following impact topics or issues were eliminated from consideration because either the resources are not present in the areas proposed for management implementation or because the effects, if any, would be negligible to minor.

Soils

The United States Department of Agriculture, Natural Resources Conservation Service (NRCS) has surveyed the soils in the park, with most soils mapped as loams.[1.8] Erosion by local streams and rivers carved the Pea Ridge landscape into its characteristic ridges, plateaus, valleys, and ravines. The impervious surfaces (e.g., parking lots, houses, and driveways) associated with surrounding developments have the potential to increase surface runoff in the park area, impacting local drainages, erosion rates, peak flows, and channel morphology. Increased surface runoff increases the rate of stream channel incision. Erosion and incision already threaten horse and foot trails in the park and have potential to threaten the historic context of the park. In the detached unit, earthworks (including rifle pits and trenches) are being degraded by surface runoff and erosion.

Implementing the action alternatives of this CLR/EA includes activities such as ground clearing, vegetation removal, and potential grading activities. Many of these activities would occur in previously disturbed areas, although some activities could occur within undisturbed soils. Soil disturbance could cause erosion; however, mitigation measures would be in place to limit the amount of soil runoff from the proposed activities. Measures to minimize adverse effects on soils during treatment and maintenance activities would include implementing erosion- and sediment-control measures such as installing silt fencing and minimizing disturbance. With mitigation, the alternatives would have local long-term minimal adverse effects. Because impacts on soils would be minimal, this impact topic was dismissed from further analysis in this CLR/EA.

Geology

The NPS Organic Act and NPS Management Policies 2006, direct the NPS to preserve and protect geologic resources and maintain natural geologic and coastal processes. The Mississippian-age Boone Formation is the primary geologic unit in the park vicinity.[1.9]

This unit is susceptible to karstification including cave and sinkhole development. Locally, this limestone-rich unit is capped by resistant sandstones, possibly of the Batesville Sandstone unit. This resistant unit caps the highest hills in the region. Dissected plateaus, ridges separated by valleys and ravines, and gently rolling open areas characterize the landscape at the park. These landforms have strong connections to the historical context of the area.

Under the action alternatives, few impacts on site geology would occur from the shallow surface excavation and grading required to implement the CLR/EA alternatives. As a result, the action alternatives would have little to no impacts on geologic resources in the study area. Because impacts on geologic resources would be minimal, this impact topic was dismissed from further analysis in this CLR/EA.

1.8 Natural Resource Conservation Service (NRCS). 2013. Web Soil Survey of Benton County, Arkansas. Soil Survey Staff. United States Department of Agriculture. Available at: http://websoilsurvey.nrcs.usda.gov/. Accessed: August 5, 2013.

1.9 U.S. Geologic Survey (USGS). 1993. Geologic Map of Arkansas

Water Resources

The Clean Water Act; section 10 of the Rivers and Harbors Appropriation Act; EO 12088, "Federal Compliance with Pollution Control Standards"; and NPS Management Policies 2006, direct the NPS to avoid or minimize human-caused pollution of waters and to avoid obstructing the navigable capacity of waters of the U.S. Two intermittent streams occur within the park boundaries.

Under the action alternatives, there would be small areas of excavation, grading, and exposure of soil material, which would increase the potential for sediment to enter the streams until work is complete and vegetation is reestablished. The transport of sediment to the intermittent streams would be minimized using best management practices (BMPs) to contain sediment and control erosion. Because the action alternatives would have no more than a minimal impact on water resources, this impact topic was dismissed from further analysis in this CLR/EA.

Floodplains

EO 11988, "Floodplain Management" requires an examination of impacts on floodplains and potential risks involved in placing facilities within floodplains. NPS Management Policies 2006, and DO-77-2: Floodplain Management provide guidelines for proposed actions in floodplains. The action alternatives would not include constructing new permanent structures or discharging fill material into the floodplain and would have no impacts on existing floodplains.

The action alternatives would also have no impacts on natural floodplain values (e.g., river processes or aquatic habitat) and the ability of the floodplains within the park to function naturally. There would be no increase in risk to life or property. Because there would be no impacts on floodplains, this impact topic was dismissed from further analysis in this CLR/EA.

Wetlands

EO 11990, "Protection of Wetlands"; NPS Management Policies 2006; and DO-77-1: Wetland Protection direct that wetlands be protected and that wetlands and wetland functions and values be preserved. These orders and policies further direct that direct or indirect impacts on wetlands be avoided when practicable alternatives exist. The Vegetation Classification and Mapping of Pea Ridge National Military Park report (2012) documented that wetlands occur within a marsh at the southwest portion of the park and, based on descriptions in the report, potentially may occur within the areas identified as Bottomland Deciduous Forest and Silver Maple Forest.

Buffer zones would be established around these areas for all action alternatives to prevent disturbance from implementing treatment alternatives. Because the buffer zones would ensure that the alternatives would have no impact on wetlands, this topic was dismissed from detailed discussion in this CLR/EA.

Land Use

In accordance with NPS Management Policies 2006, the NPS must apply appropriate land protection methods to protect park resources and values from incompatible land uses. The overall land use of the park as a depiction of a specific era would not change under any of the action alternatives. The park would be maintained under NPS management as a historic site and cultural landscape, with the land use remaining as open space, fields, and wooded areas. The action alternatives would not result in modification of the land use; therefore, this topic was dismissed from further analysis in this CLR/EA.

Prime or Unique Farmland

In 1980, the CEQ directed federal agencies to assess the effects of their actions on farmland soils classified as prime or unique by the NRCS. Prime farmland is defined as soil that particularly produces general crops such as common foods, forage, fiber, and oil seed and is available for these uses; and unique farmland produces specialty crops such as fruits, vegetables, and nuts.

Seven soil map units that occur in the park are prime farmlands and two map units are prime farmland if drained.[1.10] These units make up about thirteen percent of the park. Most of the prime farmlands are in the central and west portion of the park and include a mix of cleared fields and hardwood forests. No unique farmlands are within the park.

Potential effects of the proposed alternatives on prime farmland in the park include constructing new facilities and vegetation management treatments. The extent of the effects is related to the amount of land disturbance caused by construction and operation of park facilities and the extent of vegetation management treatments.

Under the action alternatives, fewer than ten acres would be converted from prime farmland to building sites and parking lots associated with new facilities. This represents at most about one percent of the 935 acres of prime farmland in the park and would result in a long term, negligible, adverse effect. Vegetation management treatment alternatives would be implemented on much of the prime farmland, but the alternatives would not affect the classification of the areas because their capability to produce common foods, forage, fiber, and oil seed would not be diminished.

Overall, the proposed alternatives would at most result in local long term negligible adverse effects on prime farmland. Because effects would be negligible, this topic was dismissed from further analysis. Prime farmland in the park may be affected by a change in vegetation management; however, because the action alternatives would occur in previously disturbed areas, and no prime farmland would be irreversibly converted to other uses, this topic was dismissed from further analysis in this CLR/EA.

Special Status Species

Special status species include species listed as threatened or endangered under the Endangered Species Act of 1973, as amended (16 USC 1531 et seq.) and other species considered sensitive by the park. Federally threatened and endangered species are protected under the ESA. Section 7 of the ESA requires Federal agencies to promote the conservation purposes of the ESA and to consult with the USFWS to ensure that effects of actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of listed species.

The USFWS lists nine threatened, endangered, or candidate species that may be affected by projects in the park.[1.11] The listed species are:

- Piping plover (*Charadrius melodus*)
- Neosho Mucket clam (*Lampsilis rafinesqueana*)
- Rabbitsfoot clam (*Quadrula cylindrica cylindrica*)
- Cave crayfish (*Cambarus aculabrum*)
- Arkansas darter (*Etheostoma cragini*)
- Ozark cavefish (*Amblyopsis rosae*)
- Gray bat (*Myotis grisescens*)
- Indiana bat (*Myotis sodalis*)
- Ozark big-eared bat (*Corynorhinus* (=*plecotus*) *townsendii ingens*)

1.10 Natural Resource Conservation Service (NRCS). 2012. Web Soil Survey of Benton County, Arkansas. Soil Survey Staff. U.S. Department of Agriculture. Available at: http://websoilsurvey.nrcs.usda.gov/. Accessed: August 5, 2013.

1.11 U.S. Fish and Wildlife Service (USFWS). 2012a. Information, Planning, and Conservation System. Environmental Conservation Online System. Accessed: October 27, 2012. Site updated: August 6, 2013.

Based on park resource data and staff knowledge, no federally listed or special status species are present in the park that would be affected by the action alternatives. Because no special status species would be adversely impacted by the alternatives, this topic was dismissed from further analysis in this CLR/EA.

Public Health and Safety

In accordance with NPS Management Policies 2006, the NPS will seek to provide a safe and healthful environment for visitors and employees. Conditions in the park are similar to those of surrounding areas and do not pose unusual threats to public health and safety and no hazardous materials are known to be present in the park. None of the proposed alternatives would increase risks to public health and safety because standard best practices would be used during design and construction of new facilities and during vegetation management activities. Because there would be no increased risk to public health and safety, this topic was dismissed from further analysis in this CLR/EA.

Air Quality

The Clean Air Act of 1963 (42 USC 7401 et seq.) was established to promote public health and welfare by protecting and enhancing the nation's air quality. The act establishes specific programs that provide special protection for air resources- and air quality-related values associated with national park system units. Section 118 of the Clean Air Act requires a national park system unit to meet all federal, state, and local air pollution standards.

The action alternatives include minor earthwork that would temporarily increase dust and vehicle emissions, which would result in localized effects on air quality. Vehicle emissions would rapidly dissipate; and visibility, deposition, and other air quality-related values are not expected to be appreciably impacted. Any effects would be temporary, slight, and adverse. Neither overall park air quality nor regional air quality would be more than slightly affected by the temporary increase in emissions. The no action alternative would have no effect on existing air quality; therefore, air quality was dismissed as an impact topic in this CLR/EA.

Climate Change

Climate change refers to any significant change in average climatic conditions (e.g., mean temperature, precipitation, or wind) or variability (e.g., seasonality and storm frequency) 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 evidence that climate change is occurring as a result of rising greenhouse gas (GHG) emissions and could accelerate in the coming decades.[1.12] While climate change is a global phenomenon, it manifests differently depending on regional and local factors. General changes that are expected to occur in the future as a result of climate change include hotter, drier summers; warmer winters; warmer water; higher ocean levels; more severe wildfires; degraded air quality; heavier downpours and flooding; and increased drought. Climate change is a far-reaching, long-term issue that could affect the park, its resources, visitors, and management. Although some effects of climate change are considered known or likely to occur, many potential impacts are unknown. Much depends on the rate at which the temperature would continue to rise and whether global emissions of GHGs can be reduced or

1.12 IPCC. 2007. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Core Writing Team, Pachauri, R.K. and Reisinger, A. (Eds.) IPCC, Geneva, Switzerland. pp 104.

mitigated. Climate change science is a rapidly advancing field and new information is being collected and released continually.

When considering climate change in an environmental analysis, the NPS must address both how the proposed project contributes to climate change, as indicated by GHG emissions associated with the project, and how climate change would impact park resources, and specifically those resources impacted by the project.

Although implementation activities associated with the action alternatives would contribute to GHG emissions, such emissions would be temporary and/or sporadic. Any effects of implementation-related GHG emissions on climate change would not be discernible at a regional scale, however, as it is not possible to meaningfully link the GHG emissions of such individual project actions to quantitative effects on regional or global climatic patterns.

Impacts from climate change to the natural and cultural resources in the park could occur over time; however, the treatment alternatives would incorporate flexible management techniques, using the best available technology, for facilities and resource management. Because the action alternatives would result in minimal impacts on climate, climate change was dismissed as an impact topic in this CLR/EA.

Lightscape

In accordance with NPS Management Policies 2006, the NPS strives to preserve natural ambient lightscapes, which are natural resources and values that exist in the absence of human-caused light. The proposed alternatives may result in a minor use of nighttime lighting, specifically at any proposed structures. However, in compliance with NPS policies and design guidelines, potential effects of this lighting would be minimized, resulting in localized and minor adverse effects at most. Only a small area would be affected by the additional lighting and it would have a negligible impact on the night sky. Therefore, lightscape was dismissed as an impact topic.

Paleontological Resources

NPS Management Policies 2006 directs the NPS to protect, preserve, and manage paleontological resources. Some of the geologic formations in the park are known to contain fossils of various plants and invertebrates, but no paleontological resources have been recorded in the park and the park's museum collection does not include fossils.[1.13] Because the park is not known to contain scientifically important paleontological resources, it is unlikely there would be any effects on this resource; therefore, paleontological resources was dismissed as an impact topic in this CLR/EA.

Ethnographic Resources

The NPS defines ethnographic resources as any "site, subsistence, or other significance in the cultural system of a group traditionally associated with it."[1.14]

The American Indian tribes traditionally associated with the lands of the park were apprised of the proposed project by letter. No comments were received from the tribes regarding ethnographic resources during the scoping period. Copies of the CLR/EA will be forwarded to each associated American Indian tribe for review and comment. No specific issues related to ethnographic resources have been identified in past

1.13 Hunt, R., J. Kenworthy, V. Santucci. 2008. Paleontological Resource Inventory and Monitoring Heartland Network. Natural Resource Technical Report NPS/NRPC/NRTR-2008/132. October.
1.14 NPS Director's Order #28: Cultural Resource Management. 2002.

consultations for actions in the park or as of the date of this publication. If subsequent issues or concerns are identified, appropriate consultations would be undertaken. Because it is unlikely that ethnographic resources would be affected by the preferred alternative, and because appropriate steps would be taken to protect any ethnographic resources that are inadvertently discovered, ethnographic resources was dismissed as an impact topic.

Indian Trust Resources

Secretarial Order 3175 requires that any anticipated impacts on Indian trust resources from a proposed project or action by Department of the Interior agencies be explicitly addressed in environmental documents. The federal Indian trust responsibility is a legally enforceable fiduciary obligation on the part of the United States to protect tribal lands, assets, resources, and treaty rights. The order represents a duty to carry out the mandates of federal law with respect to American Indian and Alaska Native tribes.

None of the lands of the park are trust resources according to this definition. In addition, neither the Bureau of Indian Affairs (BIA) Eastern Regional office nor the various agencies of the BIA indicated the park contains Indian trust resources; therefore, Indian trust resources was dismissed as an impact topic in this CLR/EA.

Museum Collections

Museum collections include historic artifacts, natural specimens, and archival and manuscript material. These collections may be threatened by fire, vandalism, natural disasters, and careless acts. The preservation of museum collections is an on-going process of preventive conservation, supplemented by conservation treatment, when necessary. The primary goal is preservation of artifacts in the most stable condition possible to prevent damage and minimize deterioration.

The action alternatives would not impact the current museum objects of the park. The proposed action alternatives may produce new museum accessions, including archeological objects. These new accessions would make minor beneficial contributions to the understanding of the park's natural and cultural resources. Because the effects on the museum collection would be minor and beneficial, museum collections was dismissed as an impact topic.

Environmental Justice

EO 12898, "General 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 the disproportionately high and/or adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities. According to the Environmental Protection Agency, environmental justice is the "fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including a racial, ethnic, or socioeconomic group, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies."

The goal of "fair treatment" is not to shift risks among populations, but to identify potentially disproportionately high and adverse effects, and identify alternatives that may mitigate these impacts. Minority

populations make up approximately twenty-three percent of the population in Benton County.[1.15] Residents living below the poverty level are 11.8 percent, compared to 18.4 percent statewide.

Although minority and low-income populations are present in Benton County, no actions in the alternatives would have disproportionate health or environmental effects on these populations or communities as defined in the Environmental Protection Agency's "Draft Environmental Justice Guidance" (July 1996); therefore, environmental justice was dismissed as an impact topic in this CLR/EA.

Wilderness

The Wilderness Act and NPS Management Policies 2006 require that all lands administered by the NPS be evaluated for their suitability for inclusion within the National Wilderness Preservation System. Areas suitable for wilderness designation are those that generally have the qualities of being untrammeled, natural, undeveloped, and offering solitude or a primitive and unconfined type of recreation.

The park is not located within existing or proposed wilderness boundaries and, therefore, is not subject to Wilderness Act requirements. Because there would be no direct impacts on wilderness resources and values, this topic was dismissed from further evaluation in this CLR/EA.

Natural Soundscapes

An important part of the NPS mission is preservation of natural soundscapes associated with national park system units as indicated in NPS Management Policies 2006 and DO-47: Sound Preservation and Noise Management. Natural soundscapes exist in the absence of human-caused sound. The natural ambient soundscape is the aggregate of all natural sounds within the park, together with the physical capacity for transmitting natural sound through air, water, or solid material. Acceptable frequencies, magnitudes, and durations of human-caused sound varies among national park system units, as well as potentially throughout each park unit, but are generally greater in developed areas and less in undeveloped areas.

The action alternatives would introduce additional noise from implementation of the treatment alternatives, but the additional noise would be slight and temporary. For these reasons, natural soundscapes was dismissed as an impact topic in this CLR/EA.

1.15 U.S. Census Bureau. 2013. Benton County Quick Facts. Available at: http://quickfacts.census.gov/qfd/states/05/05007.html. Last revised: March 11.



Figure 2-1. The two-day Battle of Pea Ridge took place on March 7 and 8, 1862, and was a victory for the Union, assuring that the state of Missouri would remain part of the Union (Source: Andy Thomas Painting, That Beautiful Charge).

Chapter 2. Site History

Introduction

Pea Ridge National Military Park preserves the site of the battle between Union and Confederate troops that occurred on March 7th and 8th, in 1862. During the first year of the Civil War, control of the state of Missouri was a prime objective of both sides. It was the reason for the Battle of Wilson's Creek fought near Springfield, Missouri, for the battle at nearby Dunagin's Farm in February 1862, that preceded the clash at Pea Ridge, and was the reason for the Battle of Pea Ridge.

The Battle of Pea Ridge marked the end of General Samuel R. Curtis' campaign that had begun on Christmas Day 1861. By mid-February 1862, General Curtis, who headed the Federal Southwestern District of Missouri, had chased his main adversaries, Major General Sterling Price and the Missouri State Guard into Arkansas. After a clash at Dunagin's Farm in mid-February, General Curtis moved north establishing his troops along the north ridge of Little Sugar Creek, where they dug long, linear shallow trenches in anticipation of a Confederate attack from the south.

Price had joined forces with Brigadier General Ben McCullouch's Confederates in the Boston Mountains south of Fayetteville with Major General Earl Van Dorn in command. On March 4th, Van Dorn led the 16,000 Confederates northward intending to strike into Missouri to capture St. Louis. Knowing a frontal assault would be suicidal, Van Dorn swung further north to approach Curtis' position from behind intending to strike at dawn. But after a three-day march, on March 7th, the troops were hungry, cold and weary, and hours behind schedule. With McCullough's troops far behind, Van Dorn divided his army, ordering McCullough to return to the west end of Elkhorn Mountain to rejoin him near Elkhorn Tavern.

The Confederate's delays gave Curtis time to face about, move northward and prepare to receive the assault. McCullough's troops encountered intensive fire from Union soldiers, resulting in the deaths of McCullough and General James McIntosh, and the capture of the ranking colonel. As the command structure was destroyed, McCullough's troops scattered from the field. Price's prong of the attack east of Elkhorn Mountain fared better. The Missourians slowly pushed the Union troops back, holding Elkhorn Tavern and the crucial Telegraph and Huntsville roads. On the morning of March 8th, Curtis counterattacked the Elkhorn Tavern area with massed artillery that severely damaged the Confederate line. Curtis's concerted infantry and cavalry attacks crumpled their defenses. By mid-morning Van Dorn ordered his troops to withdraw as ammunition was running low. The battle was over. Missouri was in Union control, and most troops moved east of the Mississippi to fight in other campaigns.

Prior to the Civil War, the area was home to farmers and small villages. Telegraph Road had been established as a major thoroughfare through northern Arkansas, and had been used in the 1830s as part of the northern route of the Trail of Tears, and later as a route for the Butterfield Overland Stage between St. Louis and San Francisco. Elkhorn Tavern had been one of the stops on the stage route. Leetown Hamlet was composed of twelve or so structures prior to the Civil War. It flanked Leetown Road and was surrounded by agricultural lands and forest.

After the end of the war in 1865, attempts to commemorate Civil War battlefields began nation-wide. The Daughters of the Confederate Veterans lobbied for commemoration of significant sites including

Gettysburg and Shiloh. The efforts at establishing a national military park at Pea Ridge began in 1887, following a twenty-five year reunion held by veterans of the battle. The veterans dedicated the Monument to the Reunited Soldiery on site, one of the first and few at a Civil War battlefield site, and began advocating for a military park.

In 1956, President Dwight D. Eisenhower signed legislation establishing Pea Ridge National Military Park. The state of Arkansas purchased more than 4,000 acres of land and donated it to the federal government to be developed as a national military park under the management of the NPS. Master planning commenced in 1960 and on January 21, 1963, Pea Ridge National Military Park opened to the public.

The history of the two-day battle and the influence it had on the physical landscape is critical, as is the documentation of the site before and after the battle. The developmental history of the park provides an overview of the physical changes that have occurred from the earliest known occupation to the two-day Battle of Pea Ridge to the establishment of the national military park to present day.

Statement of Significance

Pea Ridge National Military Park encompasses nearly ninety percent of the combat sites of the Battle of Pea Ridge. The battle was one of the most decisive Civil War engagements fought west of the Mississippi River. The two-day engagement was a Union victory, despite Union forces being outnumbered and fighting in Confederate territory. Pea Ridge was the first major engagement outside Indian Territory in which troops from the Cherokee Nation fought for the Confederacy. The First Creek Regiment and the First Choctaw and Chickasaw Mounted Rifles also fought.

This Civil War battle completed Union Brigadier General Samuel R. Curtis's campaign to drive pro-Confederate forces out of Missouri, and saved Missouri for the Union. In addition, Curtis is the only American military commander known to have successfully redeployed his entrenched army after learning of an intended assault on the Union rear. His Union army, although outnumbered in troops and artillery, launched the longest and most intense field artillery assault. Approximately one-third of the Union troops were German and eastern European immigrants from Missouri.

The battle left the Confederate force weakened and scattered, and retarded General Van Dorn's progress towards other battles. The subsequent Union control of Missouri provided a secure base for the Union to embark upon campaigns to control the lower Mississippi River Valley. After the battle, there were later attempts to invade Missouri, but they were easily repulsed.

The period of significance for the Park is 1862 to 1865. This timeframe includes preparations for the battle such as Curtis's construction of the Federal Trenches, the two-day battle, and extends through the end of the Civil War.[2.1] Pea Ridge National Military Park is listed in the NRHP of Historic Places under Criterion A for its association with the American Civil War,zzzzzz and with efforts to commemorate that period in our nation's history.

The park encompasses a portion of the northern route of the Trail of Tears, and campsites along the trail at Elkhorn Tavern and Ruddick's field. This segment of the trail

2.1 The List of Classified Structures (LCS) indicates a second potential period of significance of 1956 to 1963 that coincided with construction of the park facilities in association with the Mission 66 program. Only one structure, the east overlook, has potential as a contributing feature. The visitor center has been altered extensively and no longer retains integrity.

is one of the few segments of road traversed in Arkansas by eleven of the seventeen Cherokee Removal contingents in 1837 and 1839. The trail reflects the tragic experience of the Cherokee people, who were forcibly removed from their homelands in Tennessee by the U.S. government and made to march to new homes hundreds of miles to the west. Many who began the journey never made it to Indian Territory due to disease and exposure. All who traveled along the trail suffered hardship along with a heavy heart.

The Trail of Tears generally followed the route of Telegraph Road, which is eligible for listing in the NRHP under Criterion A with statewide significance as one of the few segments of road traversed in Arkansas by eleven of the seventeen Cherokee Removal contingents along the route.[2.2] Telegraph Road is listed on the Arkansas Register of Historic Places (2009) with periods of significance from 1837 to 1839, 1854, and 1862 to include the Cherokee Trail of Tears and the Battle of Pea Ridge.

In addition to the timeframe of the Battle of Pea Ridge and the Civil War, this CLR/EA recognizes the significance of other events and their physical features that influenced the cultural landscape before the battle and in the years following. The features present in 1837 and those added in the 1880s contribute to the historic character of the cultural landscape, including the following.

- Telegraph Road served as a portion of the northern route of the Trail of Tears from 1837 to 1839, and in 1854 as the Cherokee Trail of Tears.
- Two monuments, built in the 1880s to commemorate both sides of the battle: Monument to the Brave Confederate Dead and Monument to the Reunited Soldiery, were built by veterans of the war. A monument constructed in 1935, the U.S. Army Headquarters Monument, is a contributing feature as it assists in commemorating the battle.

Periods of Landscape Development

Eight periods of development describe the physical evolution of the Park. These begin with prehistory and extend into present-day. The beginning and end of each period corresponds to major physical changes related to historical or cultural events.

One period of landscape development documents the period of significance of 1862 to 1865. This is identified in bold italics below.

Some elements built after the period of significance, namely the monuments, have gained importance due to their commemoration of the battle. All were built between 1865 and 1956 within the *After the Battle/ Reconstruction* period.

- Prehistory
- Early European American Settlement (1800 to 1840)
- Trail of Tears (1835 to 1839)
- Settlement (1830s to 1862)
- ***The Battle of Pea Ridge (1862 to 1865)***
- *After the Battle / Reconstruction (1865 to* 1955*)*
- National Military Park (1956 to 1960s)
- Present-day (1967 to present-day)

2.2 Arkansas Register of Historic Places. Springfield to Fayetteville Road, Brightwater Segment. Arkansas Historic Preservation Program.



Figure 2-2. The Archaic period is the longest known period of human habitation in the Ozark Highland. This period saw continuation of hunting and gathering, but also a growth in population and population density within the Ozark Highland. Settlements appear to have shifted to the watered river valleys, and diets became more varied, with experimentation with domesticated crops taking place by the end of the period and indications of wider trade networks (Source: Archaic lifeways, by Dan Kerlin. Courtesy of the University of Arkansas Museum).

Prehistory

This period documents the early human occupation of the Pea Ridge area. The park is located within the Ozark Plateau where archeological investigations in the region have dated human use and occupation to more than 10,000 years ago.

Prehistoric artifacts discovered during excavations at the park consist of several bifacial implements, scrapers and chipped stone points. According to archeologists, these sites appear to be temporary occupation sites of undetermined origin. They are likely Late Archaic or Woodland in age, and artifacts are made of locally available materials from Boone formation chert. This material suggests that the area was temporarily occupied for the purpose of local chert procurement and tool production. People occupied the area likely as part of hunting excursions and/or carcass processing and kitchen activities.[2.3]

American Indian use and settlement continued in the Pea Ridge area into the 1830s when Euro-American settlement began to move westward.

Paleoindian: Within the Ozark Highland terrain, it is conceivable "but not demonstrated that pre-Clovis point manifestations" occur in the area.[2.4] The known time frame in calendrical years is from roughly 13,000 to 10,000 years ago, or the late glacial and immediate post-glacial period. Hunting of big-game mammals occurred (now extinct), but subsistence foraging within in small groups or communities was most likely. [2.5]

Archaic: This is the longest known period of human habitation in the Ozark Highland, and is generally divided for reasons of food ecology and technological change into three sub-periods—Early (10,000 to 8,500 cal. B.P.), Middle (8,500 to 5,000 cal. B.P.), and Late (5,000 to 2,500 cal. B.P.). [2.6] It is entirely within the Holocene Epoch and lasted in calendar years from about 10,000 to 2,500 years before present. The Archaic saw continuation of hunting and gathering, but also a growth in population and population density within the Ozark Highland. Settlements appear to have shifted to the watered river valleys, and diets became more varied, with experimentation with domesticated crops taking place by the end of the period and indications of wider trade networks.[2.7]

Woodland: This horticulture and hunting and gathering period lasted from about 2,500 calendar years ago to roughly 1,000 calendar years ago. In the Midwest, it is subdivided into an Early, Middle, and Late sub-periods by distinctive ceramics and mortuary features.[2.8]

At this time, people were practicing horticulture in addition to hunting and gathering. Settlements were probably sedentary or semi-sedentary, located near rock escarpments and the occasional stream valley. People built conical burial mounds, but this did not reach the same heights as elsewhere in eastern North America. Populations were identifiable by territory and possibly larger kin groups, and groups were predominantly egalitarian.[2.9]

2.3 Kay, Marvin and Richard Allan. 2000 Research Design for Prehistoric Archaeology of Pea Ridge and Wilson's Creek National Historic Battlefields. National Park Service Cooperative Agreement No. CA611500047. Report from Department of Anthropology, Fayetteville, AR. In Proebsting, Cultural Resource Management Plan 2004, 8.
2.4 Kay, Marvin and Jason Herrman. Archeological Predictive Modeling of Land Use at Pea Ridge National Military Park, Arkansas and Wilson's Creek Historic Battlefield, Missouri. Department of Anthropology, Fayetteville, AR. Cooperative Agreement CA No. H6115040033, 61, 62.
2.5 Ibid, 61, 62.
2.6 Ibid, 62, 63.
2.7 Ibid, 62, 63.
2.8 Ibid, 63.
2.9 Ibid, 62, 63.

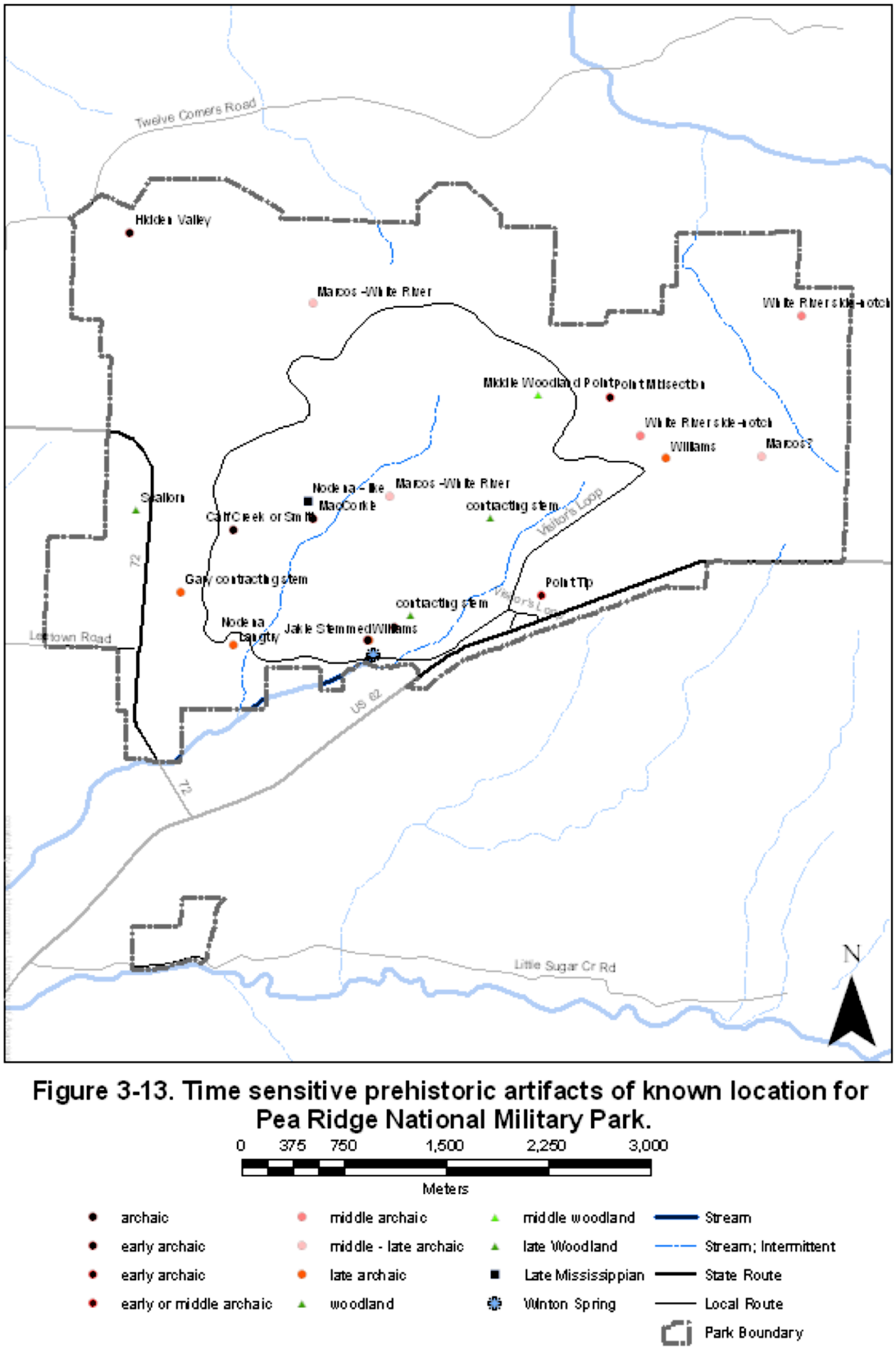


Figure 2-13. Time sensitive prehistoric artifacts of known location for Pea Ridge National Military Park.

Figure 2-3. Dr. Kay and Jason Herrmann identified areas of pre-historic archeological interest (Source: Herrmann).

Mississippi Period: This period lasted until the 1500s, in the western Ozark Highland. This was the western edge of Mississippian society and people here traded broadly, including goods and ideas. This is known archaeologically as the northern Caddoan area, even though the connection to that tribe is uncertain. It is clear however, that society became more complex at this time, with ruling chief elites supported by a network of commoners. Settlements were usually located in alluvial plains with one or more mounds, or civic-ceremonial centers. Agriculture included maize as a staple crop.[2.10]

Protohistoric: As contact occurred with Europeans, first with the Spanish in the mid-16th century and later with the French, people in the Ozark Highland continued to be agricultural. However, society was no longer based on the elite chiefdoms of the Mississippian Period. The people living around Pea Ridge were possibly the Caddo, who lived in simple villages and farmsteads, and occasionally caves or rockshelters.[2.11] During the early contact period, Indian groups were not overtaken by the Europeans, but traded extensively with the newcomers, from food and furs to slaves.[2.12]

Late 1700s: The Caddo vacated their territory north of the Red River in Arkansas. Their population had been struck hard by European diseases, and were thus more vulnerable in conflicts with the Osage.

The Osage predominated over northwestern Arkansas. The Osage had moved west from the Ohio River Valley into Missouri. The Osage were a seminomadic people who resided in Missouri and visited northwest Arkansas seasonally for hunting. They engaged in trade with Euro-Americans and also came into conflict with the Caddo, Quapaw and other resident Indian groups.[2.13]

The Eastern Cherokee Indians, originally from western North and South Carolina, northern Georgia and northeastern Tennessee, began moving west, due to Europeans moving into their homeland. Some moved to northeast Arkansas.

1700: Around this time, the Caddo people were moving out of the Ouachita valley.

1721: The Cherokee signed the first of several treaties that would result in them ceding over half their lands over the next seventy years.[2.14]

1791, July 2: The Treaty of Holston placed the Cherokee under the protection of the U.S. government.[2.15]

2.10 Kay and Herrman. Archeological Predictive Modeling of Land Use at Pea Ridge National Military Park, 62, 63.
2.11 Ibid, 64.
2.12 Ibid.
2.13 Ibid.
2.14 Pea Ridge National Military Park. GPO: 2012-372-849/80822 Reprint 2010
2.15 Ibid.

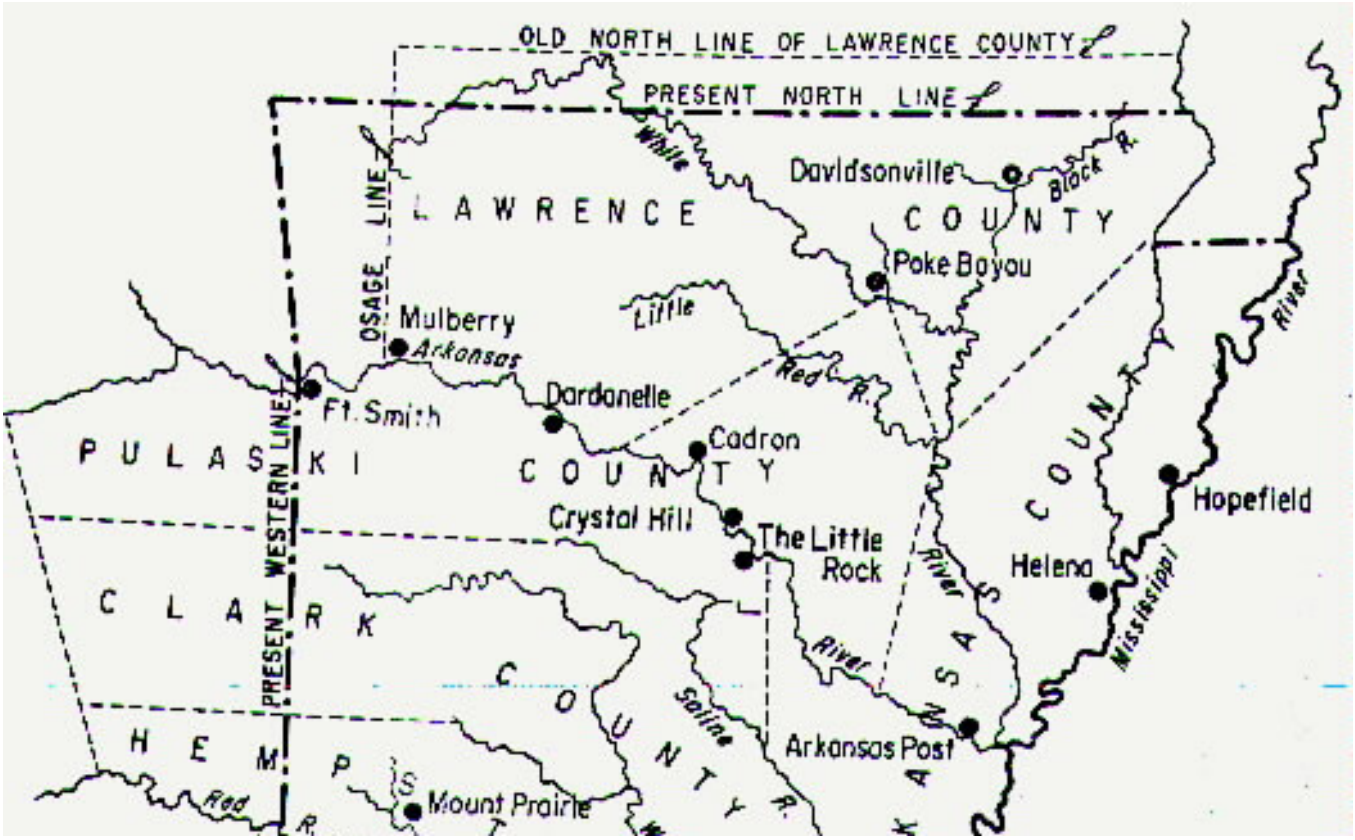


Figure 2-4. The Osage Treaty ceded all Osage lands east of Fort Clark in Missouri, and all lands north of the Arkansas River to the United States (Source: Miller County, AR).

Early European American Settlement (1800 to 1840)

This period of development begins with the westward movement of Euro-American settlers in the early 1800s. In Pea Ridge, this migration resulted in land being divided for individual ownership. The once sparse woodlands developed into an agrarian landscape of cultivated fields and farms connected by a road system. The majority of the roads in the study area were built during this period. Many of the family farms that started in the early 1800s were still in operation in 1862 when the Battle of Pea Ridge was fought.

The 1830 Indian Removal Act was enacted during this period, resulting in government agents descending upon southeastern tribes, coercing them to sign treaties and beginning the ultimate removal of American Indians from their ancestral homes to Indian Territory (present-day Oklahoma). This period ends in 1840, as most of the early development associated with Euro-Americans, particularly the roads, was complete.

1800

Osage hunters in northern Arkansas often attacked Cherokee farmsteads. The Cherokee would fight back, and complained to the government that they were not protected.

1808

The Treaty of Fork Clark (also known as the 1808 Treaty with the Osage) was the first treaty between the U.S. and the Osage Nation. The Osage ceded all the land east of Fort Clark in Missouri and Arkansas north of the Arkansas River to the United States; this included the land around Pea Ridge.

1812

After the War of 1812, Euro-American settlers moved westward to the rich farmland east of the Appalachian Mountains.[2.16] To resolve conflicts, Euro-American settlers advocated American Indian removal. Euro-Americans reasoned that by relocating American Indians, the Indians could continue to live their nomadic lifestyles and would not conflict with the settlers preference to establish farms. [2.17]

1816

The United States surveyed the ceded land from the Osage Nation and adjusted the boundary, moving it twenty-three miles westward to the mouth of the Kansas River, to create the Indian Boundary Line. This eventually became Indian Territory or Oklahoma, and to the west of this line is where virtually all tribes were to be relocated by the Indian Removal Act of 1830.

1817

The U.S. government established an official reservation for the Cherokee in northwest Arkansas where they were supposed to be able to live without threat from the Osage. The reservation was located between the Arkansas and White rivers, with no specified western boundary. After the treaty, conflicts between the Cherokee and Osage grew.

1819

In Tennessee, after having signed a number of treaties and ceding lands, the Cherokee council formally announced that no further land cessions would be considered.[2.18] By this time, Cherokee lands had dwindled to just ten percent of their original territory.

1825

The U.S. Treaty with the Osage relinquished all tribal lands in the Territory of Arkansas.

2.16 West, Elliott Dr., Trail of Tears: National Historic Trail. Western Parks Association, 1999, 4.
2.17 Ibid, 4.
2.18 Ibid, 6.

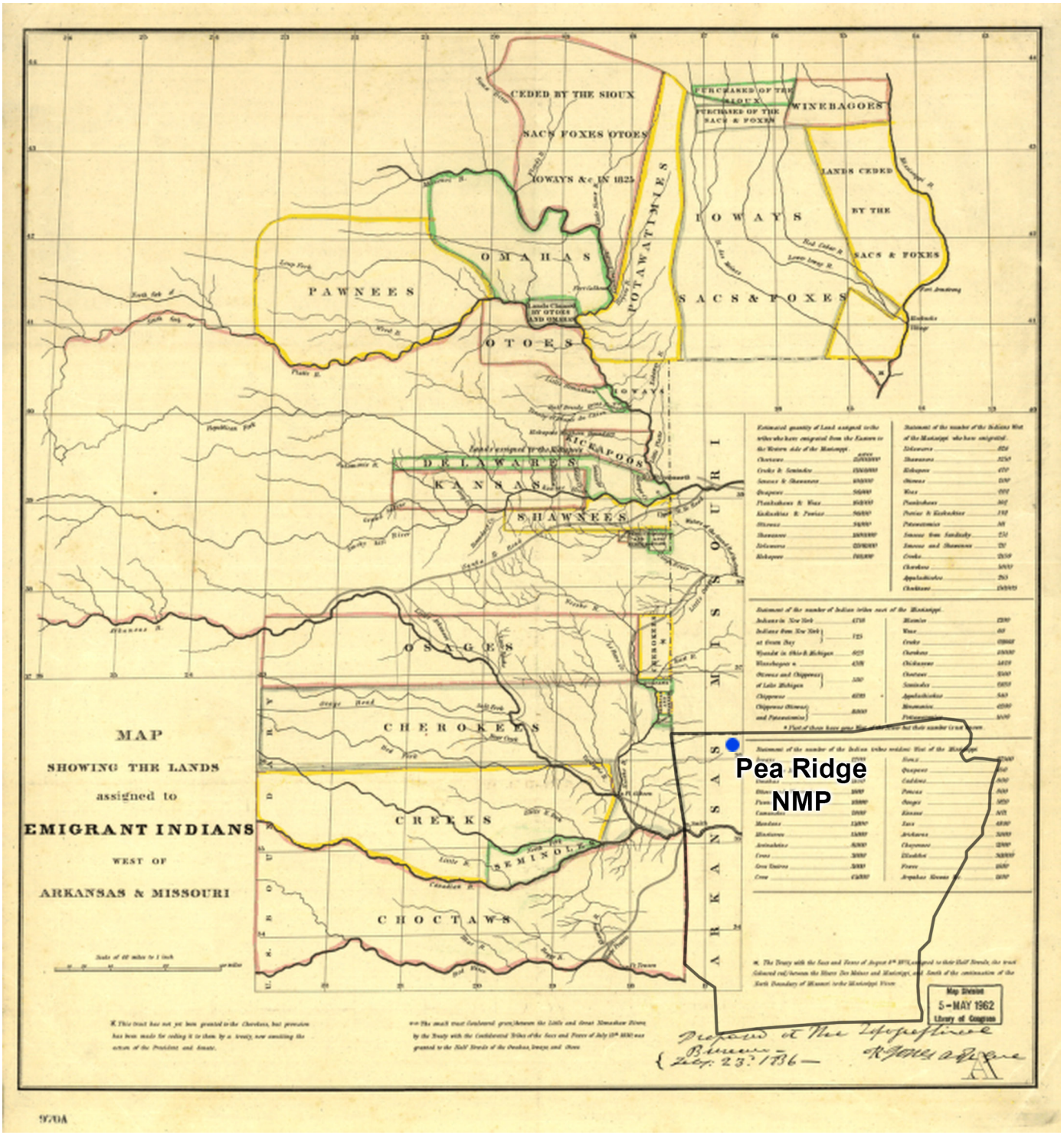


Figure 2-5. In 1830, the Indian Removal Act was passed by Congress and established an Indian Territory (Oklahoma) that was shared by the relocated tribes (Source: Library of Congress).

1828

The discovery of gold in northern Georgia, led to the Georgia Gold Rush in 1829, most of which occurred on Cherokee lands.[2.19]

Large-scale Euro-American settlement began in 1828, in the Ozarks.

Washington County, whose original borders included present-day Benton County, was established in 1828.

The Cherokee reservation in northwest Arkansas was dissolved due to pressure from white settlers who wanted the Indians to move further west. With the establishment of the Territory of Arkansas, more people wanted the land where the Cherokee were living. Since the Cherokee reservation had no specified boundary, the lands in Benton County were not formally surveyed until well after the 1820s.

1829

All residents of Dwight Mission on the Cherokee reservation moved 150 miles west into Indian Territory in 1829, and most of the Cherokee followed. The reservation was dissolved and the Ozarks were open for white settlement.

1830s

Euro-American settlers began to permanently repopulate the area around Pea Ridge.[2.20]

1830, May 26

The Indian Removal Act was passed by Congress and signed by President Andrew Jackson. The Removal Act was to "provide for an exchange of lands with the Indians residing in any of the states or territories, and for their removal west of the river Mississippi" (U.S. Government Removal Act of 1830, Chap. CXLVIII). In exchange for their lands, the government would pay for their property, assist with the move westward, help them establish a new settlement and protect them in their new homes.[2.21]

1830

One by one American Indian tribes were removed from their lands. Choctaw chiefs were coerced into signing the first removal treaty in 1830, and the tribe was moved to Indian Territory.[2.22]

1832

The Cherokee Nation challenged the U.S. government through Worcester v. Georgia, gaining a ruling acknowledging the Cherokee held sovereign rights. President Jackson dismissed the ruling.

1830 to 1840

Huntsville Road and Ford Road were built.[2.23]

1830 to 1836

The Springfield to Fayetteville Road (that would later be named Telegraph or Wire Road) was built between 1830, and 1836, as a twenty-five foot wide track.[2.24] The road extended from Springfield, Missouri, to Fort Smith, Arkansas. Telegraph Road would become important in the later years for its role as a segment of the Trail of Tears, as the route of the first telegraph lines between towns, and for its role in aiding in military transportation during the Civil War.

2.19 Pea Ridge National Military Park. GPO: 2012-372-849/80822 Reprint 2010.
2.20 National Park Service. Cultural Landscape Inventory. SHPO Review Copy. 2008. Pea Ridge National Military Park, 11.
2.21 West, Elliott. "Trail of Tears", Draft 1998, 6.
2.22 Pea Ridge National Military Park. GPO: 2012-372-849/80822 Reprint 2010.
2.23 Park Historic Structures Program. National Park Service. U.S. Department of the Interior http://www.hscl.cr.nps.gov/insidenps/summary.asp?PARK=PERI&STATE=AR&STRUCTURE=&SORT=2. 3.
2.24 Arkansas Historic Preservation Program. Springfield to Fayetteville Road. http://www.arkansaspreservation.com/historic-properties. Accessed 6/4/2013.

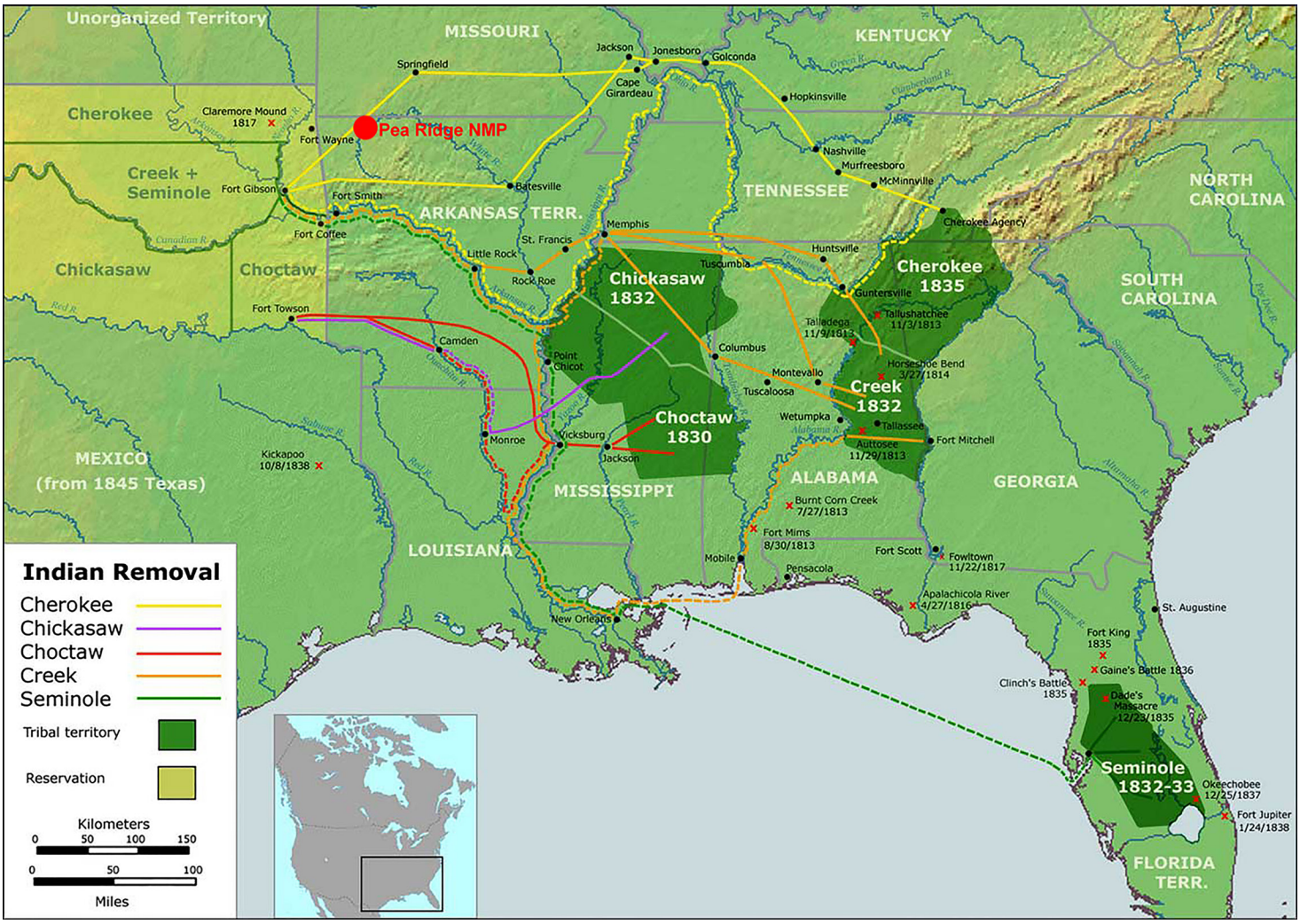


Figure 2-6. One overland route of the Trail of Tears, the Northern Route, extended through a portion of present-day Pea Ridge National Military Park. Many Cherokee traveled along Telegraph Road and to camp sites including one at Ruddick's field (Source: Washburn, Wilcomb E., ed. "Handbook of North American Indians, Volume 4: History of Indian-White Relations" Smithsonian Institution Scholarly Press, 1989).

Trail of Tears (1835 to 1839)

This period of development covers the forced removal and relocation of tens of thousands of southeastern American Indians between 1837, and 1839, and events of 1835, that led to the removal.

During this period, members of five great tribes were removed from their ancestral homes in Georgia, North Carolina, Tennessee, Alabama and Mississippi to Indian Territory (present-day Oklahoma). Within the Pea Ridge area, several contingents travelled along Telegraph Road beginning in 1837, and camped on sites within present-day Pea Ridge National Military Park.

The removal of American Indians followed several routes. Some were overland and others were via water. One overland route, the Northern Route, extended through a portion of the present-day Park. Many Cherokee traveled along Telegraph Road and to camp sites including one at Ruddick's field.[2.25] As many as twelve removal contingents may have traveled through the Park (however little documentation confirms this supposition).[2.26] Written documentation from Richard Taylor and Peter Hilderbrand confirmed that two other contingents traveled Telegraph Road.

The removal followed the 1830 Indian Removal Act and the 1835 Treaty of New Echota, which most Cherokee refused to recognize. Some American Indians retreated somewhat voluntarily, preferring compliance to annihilation. Other tribes were removed by armed force. Most people walked, as wagons were reserved for the elderly and youngest children. Thousands died en-route. At virtually every camp some Cherokee were left in poorly marked graves as family and friends continued the march.[2.27] Many Creek and Cherokee managed to break away during the journey and settled in Missouri, and Arkansas.[2.28]

1835 to 1836

The Treaty of New Echota, signed December 29, 1835 (became law in 1836), forced the Cherokee to forfeit all remaining lands east of the Mississippi River to the United States Government. The treaty was repudiated by most Cherokee.[2.29]

1837

The earliest contingent of Cherokee traveled Telegraph Road under the charge of B. B. Cannon. Later contingents followed this route, traveling into Arkansas from Missouri along the Springfield to Fayetteville Road (later named Telegraph Road).[2.30] This first forced migration began with 365 Cherokee on October 15, 1837, and ended in Indian Territory on December 29, 1837. B.B. Cannon's journal entry on December 23, 1837, made reference to "Reddick," which provides the first evidence of the Trail of Tears having come through northwest Arkansas.[2.31] It is estimated that 356 Cherokee camped at "Reddick's" field on December 23, 1837.[2.32] The Reddick property was the current-day Ruddick's Field.

2.25 Arkansas Historic Preservation Program. Springfield to Fayetteville Road. http://www.arkansaspreservation.com/historic-properties. Accessed 6/4/2013.
National Park Service. Cultural Landscapes Inventory. SHPO Review Copy. 2008. Pea Ridge National Military Park. 11.
2.26 2003 Sequoyah Research Center, Indian Removal through Arkansas; West, Elliott. "Trail of Tears". 1998.
Littlefield, Daniel F. Jr., The Pea Ridge National Military Park Site: Interpretive Contexts.
2.27 West, Elliott. "Trail of Tears". 1998. 22.
2.28 Ibid, 26.
2.29 Arkansas Historic Preservation Program. Springfield to Fayetteville Road. http://www.arkansaspreservation.com/historic-properties. Accessed 6/4/2013. v.
2.30 West, Elliott. "Trail of Tears". 1998. viii.
2.31 Ibid.
2.32 2003 Sequoyah Research Center, Indian Removal through Arkansas

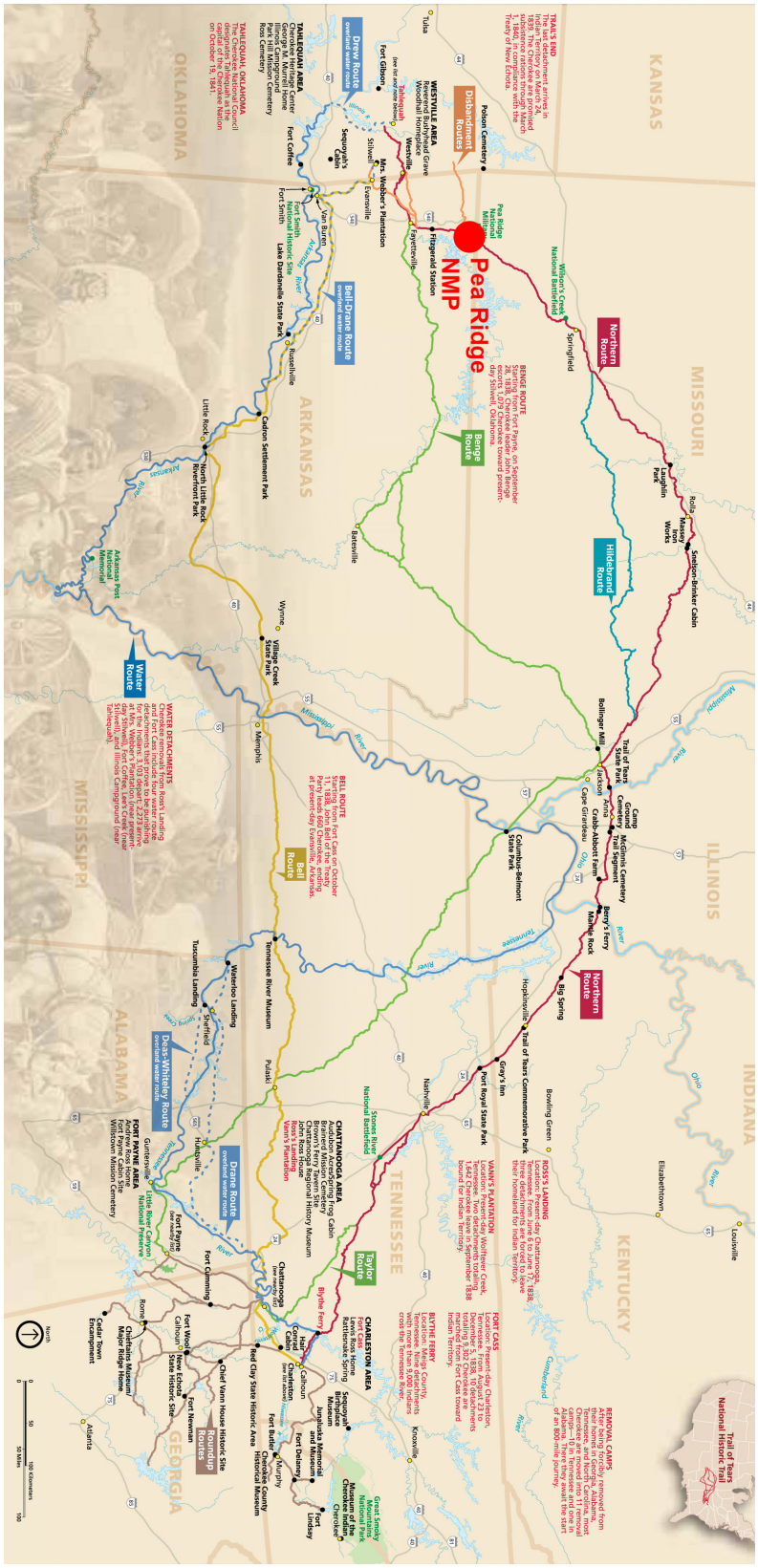


Figure 2-7. Beginning in 1838, thousands of American Indians were evicted from their homelands and relocated to Indian Territory in present-day Oklahoma. Several overland routes were used including the Northern Route that traveled Telegraph Road. Of the groups that took this route, some camped in Ruddick's Field (Source: National Park Service, Trail of Tears National Historic Trail).

1838, March 18

Richard Taylor's contingent of nearly a thousand Cherokees travelled "through Washburns prairie and to Pratts eighteen miles – crossed the line of Arkansas and Missouri near Meeks on Sugar Creek seven miles North East of Pratts Monday night, hail, rain wind and thunder".[2.33] The 'Pratt' referred to is Lewis Pratt as his property was a part of the greater Brightwater community.[2.34] Taylor referenced Peter Hilderbrand whose contingent was following the same route and was a few days' journey behind.

2.33 West, Elliott. "Trail of Tears". 1998. xiv.
2.34 Ibid, xv.

Leader's Name	Date of arrival	No. in group
B.B. Cannon	December 23, 1837	356
Daniel Colston	January 10 or 11, 1839*	651
Situwakee	January 27 or 28, 1839*	1,250
Jesse Bushyhead	February 17 or 18, 1839*	898
Stephen Foreman	February 21 or 22, 1839*	921
Choowalooka	February 23 or 24, 1839*	970
Moses Daniel	February 24 or 25, 1839*	924
James Brown	February 27 or 28, 1839*	717
George Hicks	March 8 or 9, 1839*	1,039
Taylor	March 18 to 20, 1839**	944
Hilderbrand	March 20, 1839*	1,312

* Approximate date, based on the known arrival in Indian Territory.

** Stayed two days due to heavy rain.

Figure 2-8. Arrival dates of Cherokee contingents at Ruddick's Field within present-day Pea Ridge National Military Park (Source: Littlefield, Daniel F. Jr., The Pea Ridge National Military Park: Interpretive Contexts Presented to the Arkansas Chapter of the National Trail of Tears Association Pea Ridge National Miliary Park January 19, 2002).

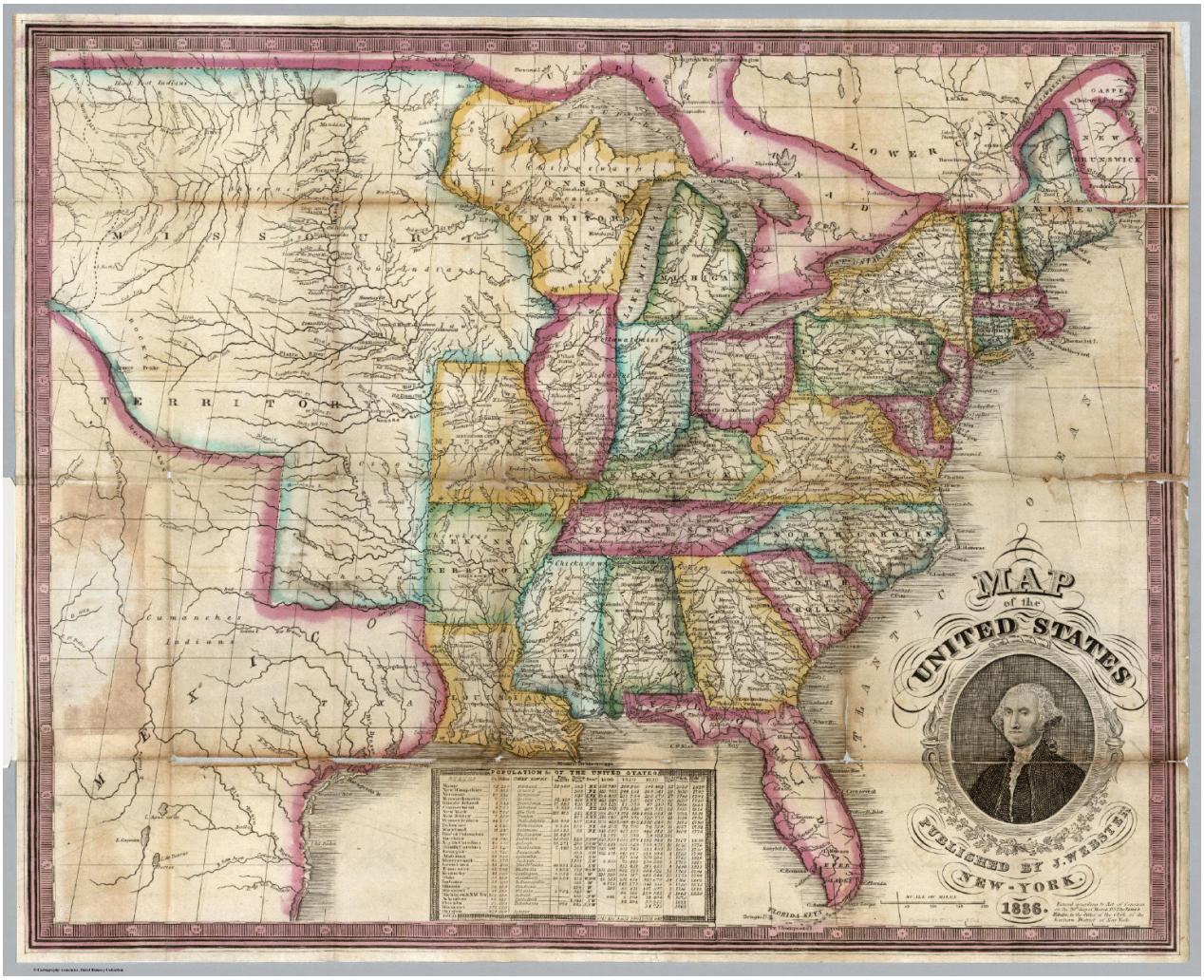


Figure 2-9. Following rapid European American settlement, Arkansas became a state in 1836 (Source: Cartography Associates, CA).

Settlement (1830s to 1862)

This period covers the continued development of the Pea Ridge community including Leetown Hamlet, the tanyard and Elkhorn Tavern as a Euro-American agricultural settlement prior to the Civil War. The period ends in 1862, just prior to the Battle of Pea Ridge.

1833 to 1840

Elkhorn Tavern was built between 1833, and 1840, by William Ruddick and his son-in-law Samuel Burks as a single-family dwelling.[2.35]

Late 1830s to early 1840s

The tanyard began in the late 1830s, to early 1840s, by either William Ruddick or Samuel Burks.[2.36] There are no descriptions of the physical appearance of the tanyard. Bearss' research in the 1950s/1960s, noted that most 19th century tanyards in northwestern Arkansas had similar characteristics. They were surrounded with a rail fence to keep out hogs, vats were dug in a row, located along the edge of a stream.[2.37]

Oral histories conducted in the 1960s, documented remembrances of a small building in the tanyard used by tanners to work the hides.[2.38]

1840

Leetown Hamlet was founded by John W. Lee, a farmer from Tennessee.[2.39] Historic maps record different numbers of structures, varying between six to fifteen but most agree on the alignment of Leetown Road that entered the town from the north before making a ninety degree turn to the east.[2.40]

According to local historian Alvin Seamster, there was a little mill house located along Winton Spring Branch.[2.41] The Mayfield house was located about 100 yards to the west of the other buildings.[2.42] Some reports indicated that Leetown Hamlet had a general store, a blacksmith shop and a Masonic Lodge but little evidence exists to confirm the presence of these buildings.[2.43]

1848

Sylvanus Blackburn built a sawmill on War Eagle Creek providing sawed lumber to people in the northeastern part of Benton County. The mill likely provided lumber used in the modifications of the Elkhorn Tavern.[2.44]

1840 to 1860

A masonry structure and steps into the Spring Box (cistern) were built around a natural spring to the northwest of Elkhorn Tavern.[2.45]

c. 1850

Elkhorn Tavern was weather-boarded and painted white.[2.46]

1850 to 1870

Stone well was built at the tanyard. [2.47]

1854

Abedingo Shelton received a patent from the Fayetteville Land Office on November 5, 1854, for the NE ¼ of the NW ¼ of Section 3 in Leetown Hamlet. Shelton sold a portion of this property to John W. Lee.[2.48]

2.35 Bond, History of Elkhorn Tavern, 1.
2.36 Bearss, Leetown, Elkhorn Tavern Grounds, Federal Earthworks, and tanyard as of March 1862, 9.
2.37 Ibid, 10.
2.38 Ibid, 11.
2.39 Herrmann, 11.
2.40 Discussion of Osterhaus' map and report from the Official Records of the Civil War, and tax records and deeds. Bearss. "Leetown", 85-87. Maps drawn by Charles Squires of the 37th Illinois. Map drawn by Captain Comstock.
2.41 Bearss. "Leetown", 86.
2.42 Ibid, 87.
2.43 Herrmann, 15.
2.44 Bond, John W. "The History of Elkhorn Tavern", 2.
2.45 List of Classified Structures, NPS, 3.
2.46 PERI NRHP, 2.
2.47 List of Classified Structures, NPS, 3.
2.48 Bearss. Leetown, 80.



Figure 2-10. The Butterfield Overland Stage travelled along Telegraph Road with a stage stop at Elkhorn Tavern. Established in 1858, the route transported mail and passengers between St. Louis, Missouri and San Francisco, California until 1861 (Source: National Postal Museum).

1858

October 9, 1858: Jesse and Polly Cox purchased Elkhorn Tavern and 313 acres of land from Samuel Burks for $3,600. The land purchase consisted of four tracts in Sections 35 and 36, Township 21 North Range 29 West.[2.49] Jesse C. Cox and wife Polly were native Kentuckians.

Soon after, Cox added an exterior stairway to the building so that church goers could go upstairs to the northeast room for their worship services without disturbing guests downstairs.[2.50]

1858 to 1861

John Butterfield of New York received a government contract to carry mail and passengers between St. Louis and San Francisco in 1857. The Butterfield Overland Stage began running along Telegraph Road in 1858 and served as a delivery service. Elkhorn Tavern became well known as a stop along the route.[2.51]

Although short-lived, the Butterfield Overland Stage would run a distance of more than 2000 miles, starting at Tipton, Missouri through northwest Arkansas and other points, and on to its final destination in San Francisco.[2.52]

1860 to 1870

The Leetown Cemetery was established during this time.[2.53] At the tanyard, a structure/house was built.[2.54]

1860

Telegraph wires were strung along the Butterfield Overland Stage route giving it the name Telegraph Road.[2.55] The telegraph line was cut a year later after Arkansas seceded from the Union.[2.56]

The 1860 census shows Sugar Creek Township having a population of 122 persons in 21 families.[2.57]

November: Abraham Lincoln was elected President of the United States.

December 20: South Carolina secedes from the Union.

1861

February 4: Confederate States of America formed in Montgomery, Alabama.

March 4: The Arkansas convention met and rejected secession.

April 14: Fort Sumter in South Carolina surrendered after Confederate bombardment.

May 6: Arkansas voted for secession.

June 21: First Battle of Bull Run, Virginia.

August 10: Battle of Wilson's Creek, Missouri. A combined force of Missouri State Guard troops and Confederates led by Major General Sterling Price won the battle.
November: General Henry Halleck took command of the Union Department of Missouri, and instilled needed purpose and direction to the Union's campaign in Missouri. Namely, to evict the Confederacy from the state.

December: Brigadier General Samuel R. Curtis was appointed to head the Federal Southwestern District of Missouri. The Union controlled St. Louis, the Missouri River valley, and territory as far south as the railhead at Rolla.[2.58] Curtis' Army of the Southwest began to drive General Price's Confederate force into Arkansas.[2.59]

2.49 Bearss. Leetown, 46.
2.50 Bond. History of Elkhorn Tavern, 3.
2.51 Ibid.
2.52 Arkansas Register, Springfield to Fayetteville Road.
2.53 List of Classified Structures. NPS.
2.54 List of Classified Structures. NPS, 3.
2.55 CLI, 11.
2.56 Arkansas Register, Springfield to Fayetteville Road.
2.57 Herrmann, 18.
2.58 GMP. 7
2.59 GMP. 9

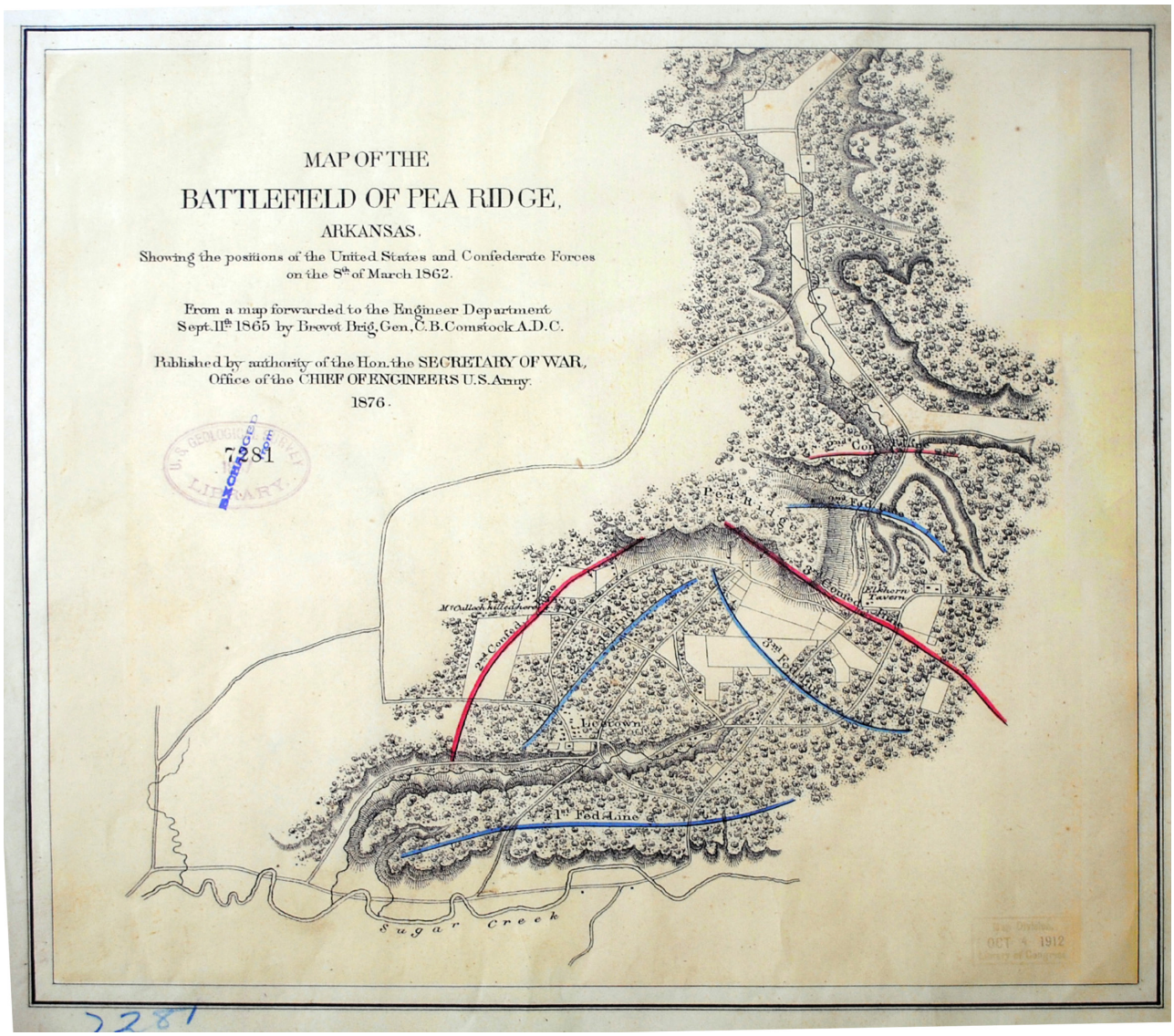


Figure 2-11. This 1876 map of the battlefield indicates Union and Confederate troop movements (Source: PERI).

The Battle of Pea Ridge (1862 to 1865)

This period of development documents the Civil War battle at Pea Ridge and the associated affects on the landscape. Preparations for the battle began in February 1862. These included the construction of the earthen trenches above Little Sugar Creek, the only features built specifically for the battle.

During the battle, both armies disrupted the ordinary life of area residents. They occupied private structures, and farmer's fields and woodlots. The presence of these vast armies upset the daily routine and the community's former agricultural properties were converted into a battlefield.

Available structures were used as hospitals for the wounded and agricultural fields were converted to battlefields as they provided clear fields of fire for artillery. Road systems were used for movement of cavalry, artillery and wagons full of ammunition. Fence lines became shelters for fighting soldiers. After the battle was fought, the landscape was abandoned, with some residents returning a few years later to reclaim their homes and lands. The battle disrupted the normal supply of goods and agricultural production in the area, and destroyed several buildings. This period ends in 1865, at the end of the Civil War, and the time when the residents of Pea Ridge began reconstruction of their homes.

1862, February 17

General Curtis' troops defeated a Confederate force at the Battle of Little Sugar Creek/ Dunagin's Farm, a few miles south of Pea Ridge.[2.60] This resulted in the Confederates withdrawing to the Boston Mountains, south of Fayetteville.

2.60 GMP, 9.

1862, early

The Coxes witnessed the gathering armies camped within seven miles of Elkhorn Tavern, on Little Sugar Creek. As the Coxes still owned property in Kansas, they removed their cattle there.[2.61] Jesse Cox's wife, seven children, and five slaves, remained in Arkansas.[2.62]

1862, February/early March

General Curtis' 10,500 Union soldiers built trenches on the bluffs above Little Sugar Creek (the Federal Trenches). The Elkhorn Tavern grounds were used by the Union troops to stockpile equipment and supplies. The large barn was used for the storage of a commissary and as a sutler's store.[2.63]

1862, March 4

Major General Earl Van Dorn assumed command of General Price and McCulloch's armies. He marched north with the consolidated force of 16,000 troops, intending to take St. Louis, Missouri.

1862, March 5

The Federal Trenches were dug, artillery emplacements made, timber felled and breastworks erected by the Union soldiers. This required the removal of some buildings that were in the way.[2.64]

According to one soldier, the "retreat to Little Sugar Creek occurred on the 5th of March, 1862. It was late in the afternoon when we reached the creek and went into camp a safe distance back from the brow of the hill north of the stream. The first order was to built earth works on this hillside and get the artillery into position as this slope faced the south and thus commanded the direct approach of the rebels coming from that direction. It was a most tedious and difficult

2.61 Bond. History of Elkhorn Tavern, 5.
2.62 Ibid.
2.63 Bearss. Leetown, 43.
2.64 Bearss. Leetown, 18.



Figure 2-12. In early March 1862, General Curtis of the Union ordered the construction of earthen trenches on the bluffs overlooking Little Sugar Creek. Vegetation on the hillside was cleared to provide a view of the valley to the south. From this position, Curtis planned to await the Confederate attack (Source: Andy Thomas Painting, Digging In).

work. Up through a heavy underbrush over the rough uneven surface the men pulled the heavy guns by means of long ropes."[2.65]

1862, March 6

Van Dorn halted the Confederate army at Camp Stephens on Little Sugar Creek, about four miles west of the right flank of Curtis' position. Van Dorn's scouts told him about Curtis' fortified position on the bluffs above the creek. At this point, Van Dorn decided to take the Bentonville Detour, which required speed and secrecy to slip behind Curtis, to attack the Union rear.[2.66]

1862, March 7

Van Dorn knew that a frontal assault against Curtis's troops would be suicidal, so he swung north to come in behind them. He planned to strike at dawn on March 7, but his troops, hungry, cold, and weary from a difficult three-day march, arrived hours behind schedule. McCulloch's troops fell so far behind that Van Dorn decided to temporarily divide his army. He ordered McCulloch around the west end of Elkhorn Mountain, then to turn east along Ford Road to rejoin Price's troops near Elkhorn Tavern. These delays gave Curtis time to face about and prepare for the attack.

Elkhorn Tavern: Attacking east of Elkhorn Mountain, Van Dorn and Price fared better. Price's troops slowly but steadily pushed the Union back until, at nightfall, they held Elkhorn Tavern and the crucial Telegraph and Huntsville roads. During the night the survivors of McCulloch's Leetown fight joined them. Mr. Cox, his wife, mother and slaves sought protection in the cellar of the Elkhorn Tavern, where they remained for two days, being under fire for thirteen hours.[2.67]

Elkhorn Tavern Grounds: In addition to Elkhorn Tavern, the grounds included a large barn and stable to the southwest and a lean-to immediately behind the building.

A blacksmith's shop was located across Telegraph Road from Elkhorn Tavern and in the same lot were some corn-cribs.[2.68]

tanyard: Although evidence is inconclusive, it appears that Samuel Burks owned and operated the tanyard in March 1862.[2.69] The tanyard was used as a hospital for Confederate soldiers who fought in Williams Hollow.

Leetown Hamlet: As McCulloch's troops, including two regiments of Cherokee Indians under General Albert Pike, moved around the west end of Elkhorn Mountain, they ran into intensive fire near Leetown that killed McCulloch and Brigadier General James McIntosh and led to the capture of the ranking colonel. With their command structure practically destroyed, McCulloch's men scattered from the field.

Union surgeons, during the fight north of Leetown Hamlet, took over the buildings in the hamlet as hospitals.[2.70]

"Confederate efforts at Leetown failed, and the First Cherokee Mounted Rifles reinforced soldiers guarding Van Dorn's supply train. The second Cherokee Mounted Rifles, however, joined the Confederate left wing on Pea Ridge near Elkhorn Tavern. . .where it skirmished with Union troops on March 8. . .additional troops from the Indian Territory reached the battlefield March 8. The First Creek Regiment and the First Choctaw and Chickasaw Mounted Rifles joined the train guard."[2.71]

2.65 Bearss. Leetown, 24.
2.66 Bearss. Leetown, 18-19.
2.67 Bearss. Leetown, 52.
2.68 Bearss. Leetown, 51.
2.69 Bearss, 1965.
Leetown, Elkhorn Tavern Grounds, Federal Earthworks, and tanyard as of March 1862, 10.
2.70 Bearss. Leetown, 76.
2.71 Clifford, Roy A.. The Indian Regiments in the Battle of Pea Ridge.



Figure 2-13. Pratt's Store served as headquarters for General Curtis during the Battle of Pea Ridge. The painting depicts the movement of the Union army towards the Confederates who were planning an attack on the army's rear (Source: PERI).

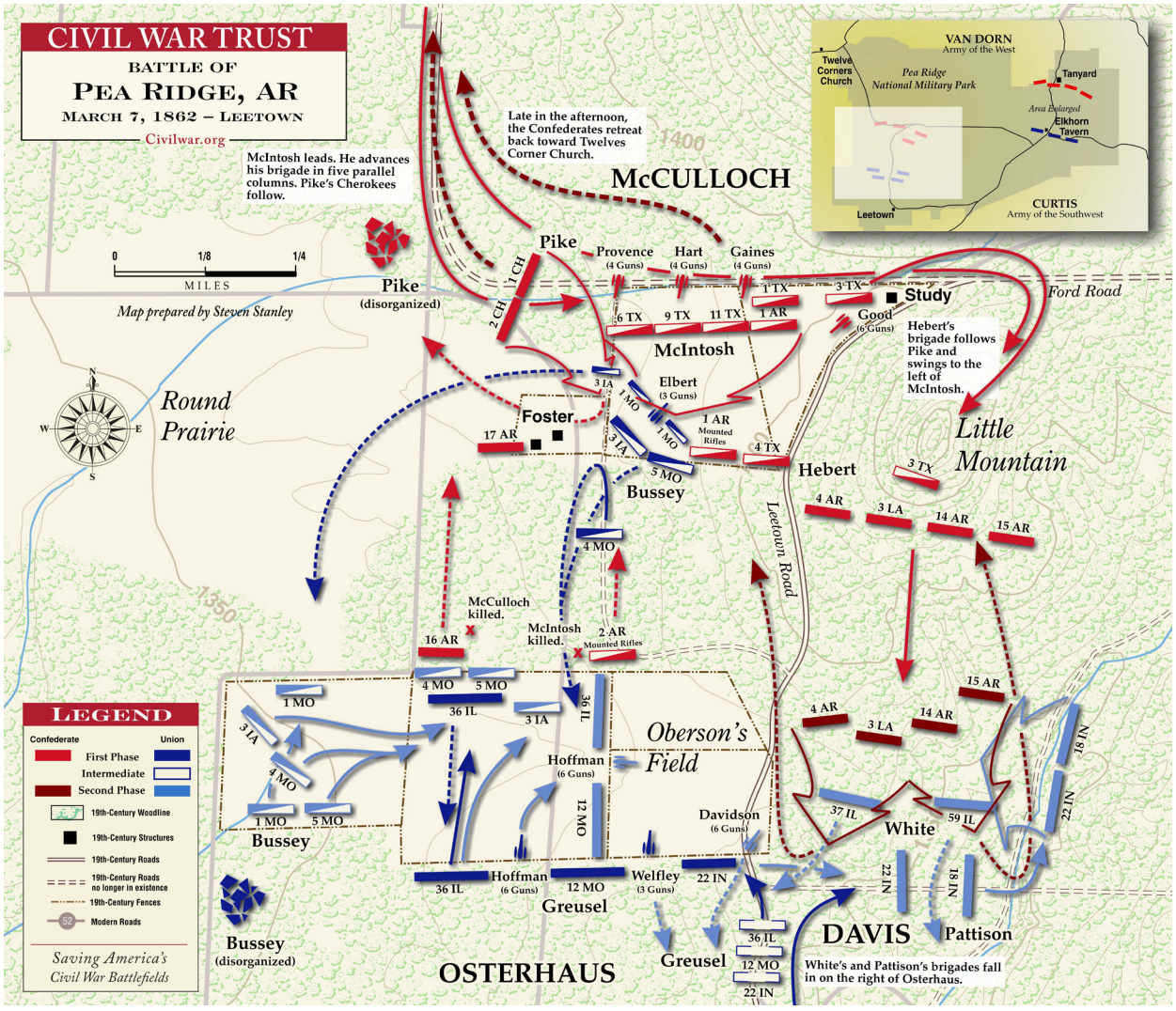


Figure 2-14. Diagram illustrates troop movements on March 7, 1862 at Leetown Battlefield, prepared by Steven Stanley for the Civil War Trust (Source: PERI and Civil War Trust).



Figure 2-15. This painting depicts the battle at Elkhorn Tavern showing the Confederate advance from Cross Timber Hollow along Telegraph Road. At far left is the barn and carriage house. At the bottom right is the small blacksmith shop (Source: PERI).

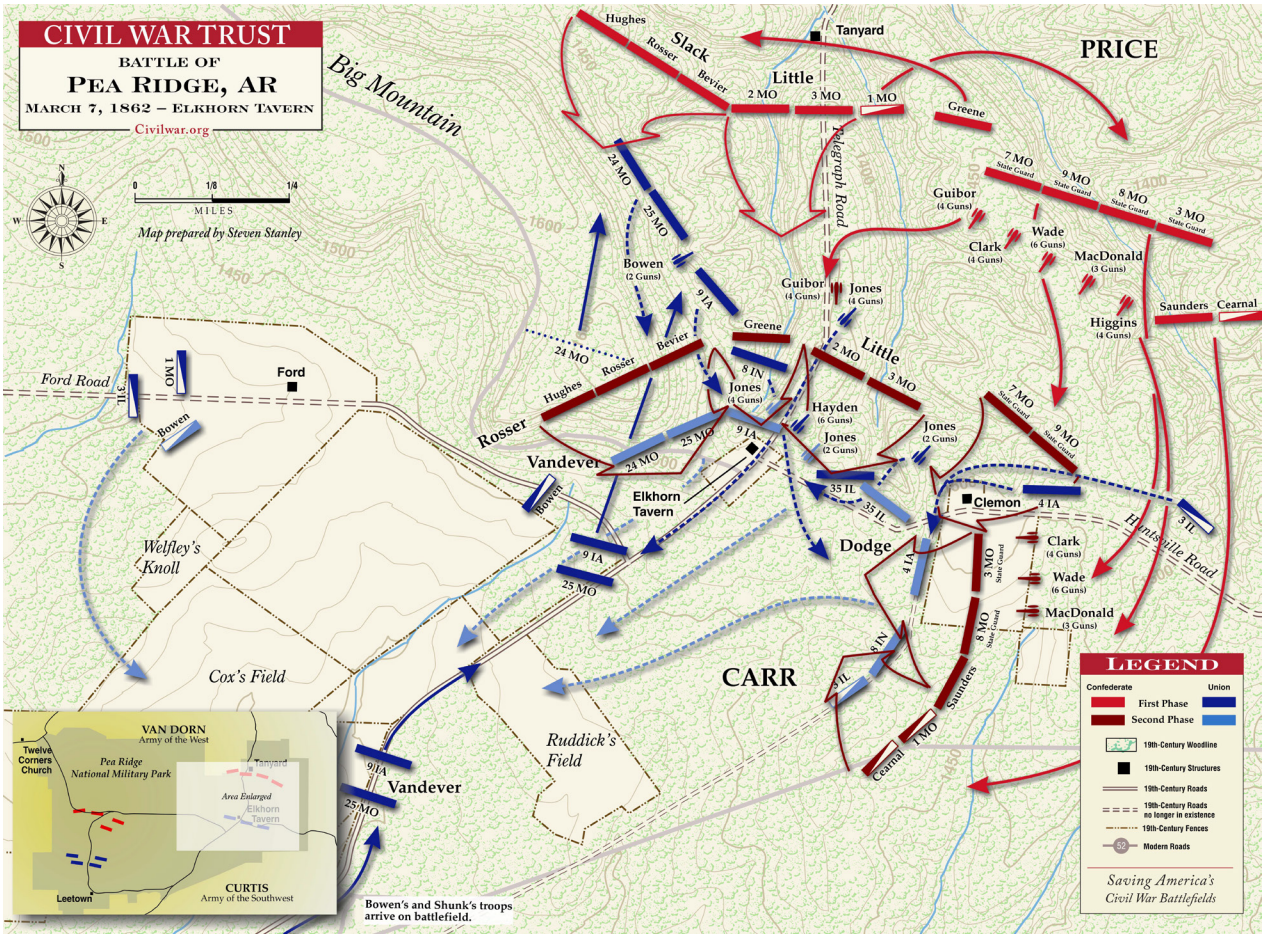


Figure 2-16. This diagram illustrates troop movements on March 7, 1862, at Elkhorn Tavern, prepared by Steven Stanley for the Civil War Trust (Source: PERI and Civil War Trust).



Figure 2-17. This painting by Andy Thomas depicts the Confederate advance from Cross Timber Hollow in their attempt to take Elkhorn Tavern on March 7, 1862 (Andy Thomas Painting, On the Battery).

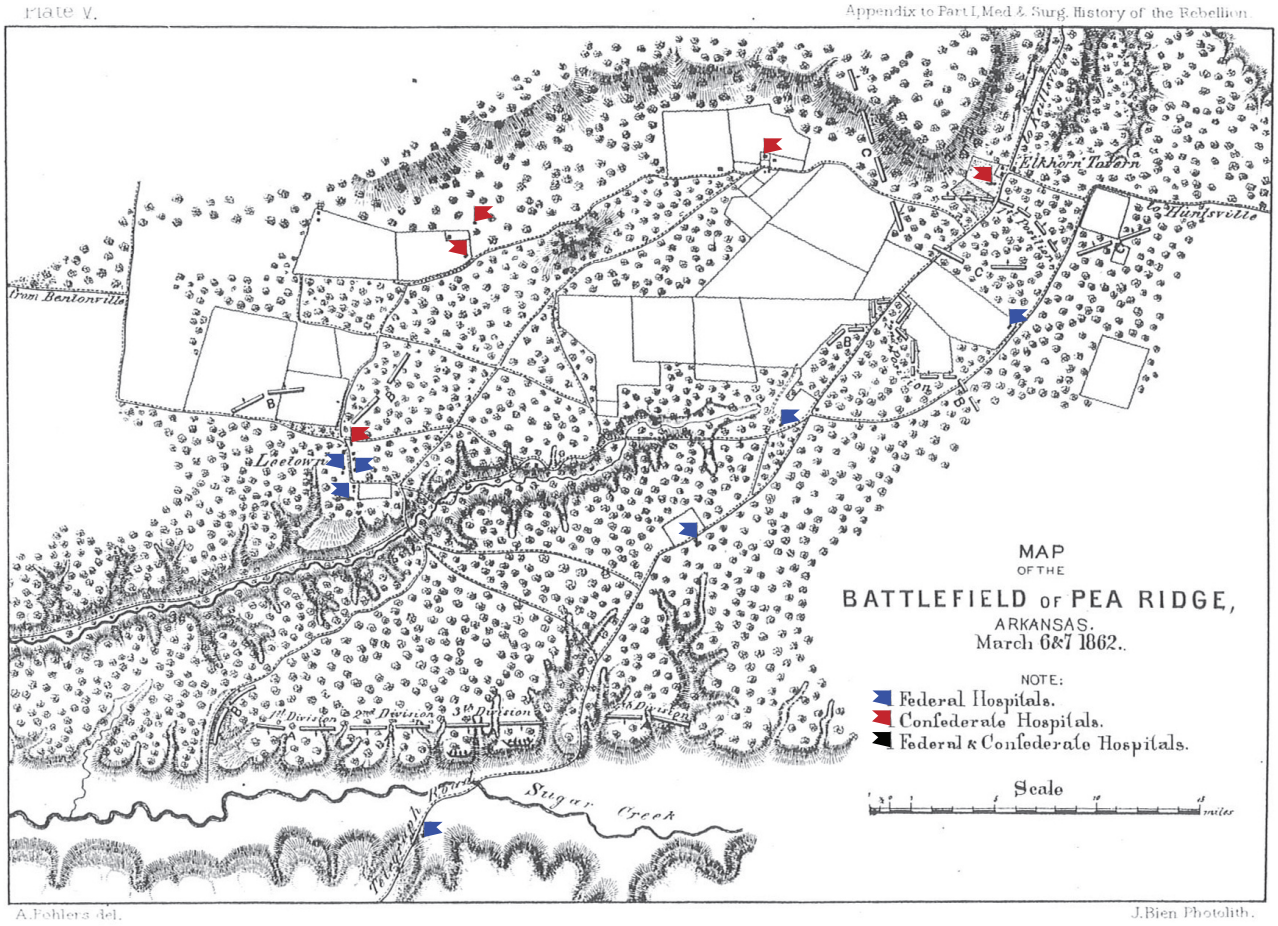


Figure 2-18. This 1862 map indicates field hospitals established by both armies, including Leetown Hamlet, Ford's Farm, near Round Top, Elkhorn Tavern, Pratt's House/Store and Ruddick's Field (Source: PERI, with color annotation by MB).

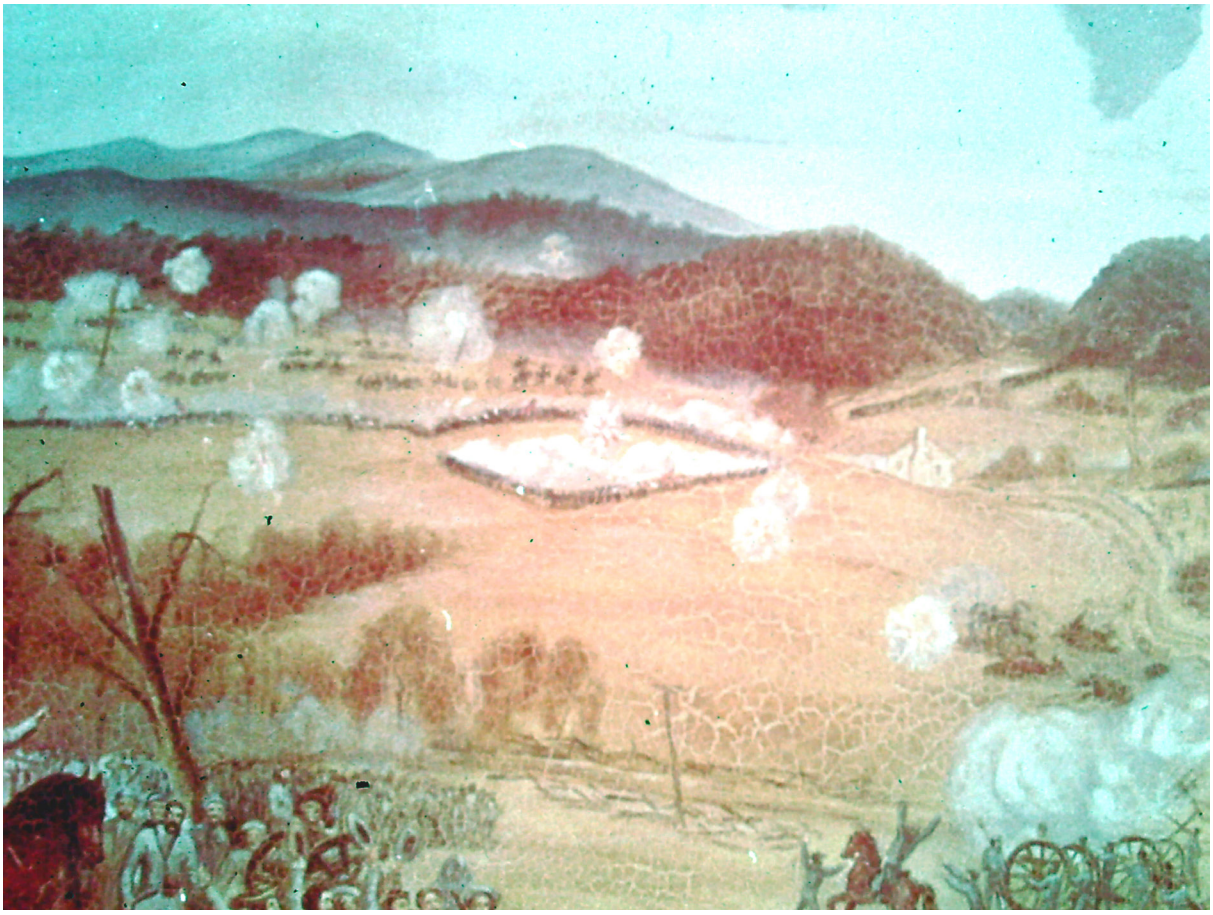


Figure 2-19. This painting of the Battle of Pea Ridge, March 8, 1862, illustrates the battle in Ruddick's Field. Elkhorn Tavern and the entrance to Cross Timber Hollow are on the right (Source: PERI).

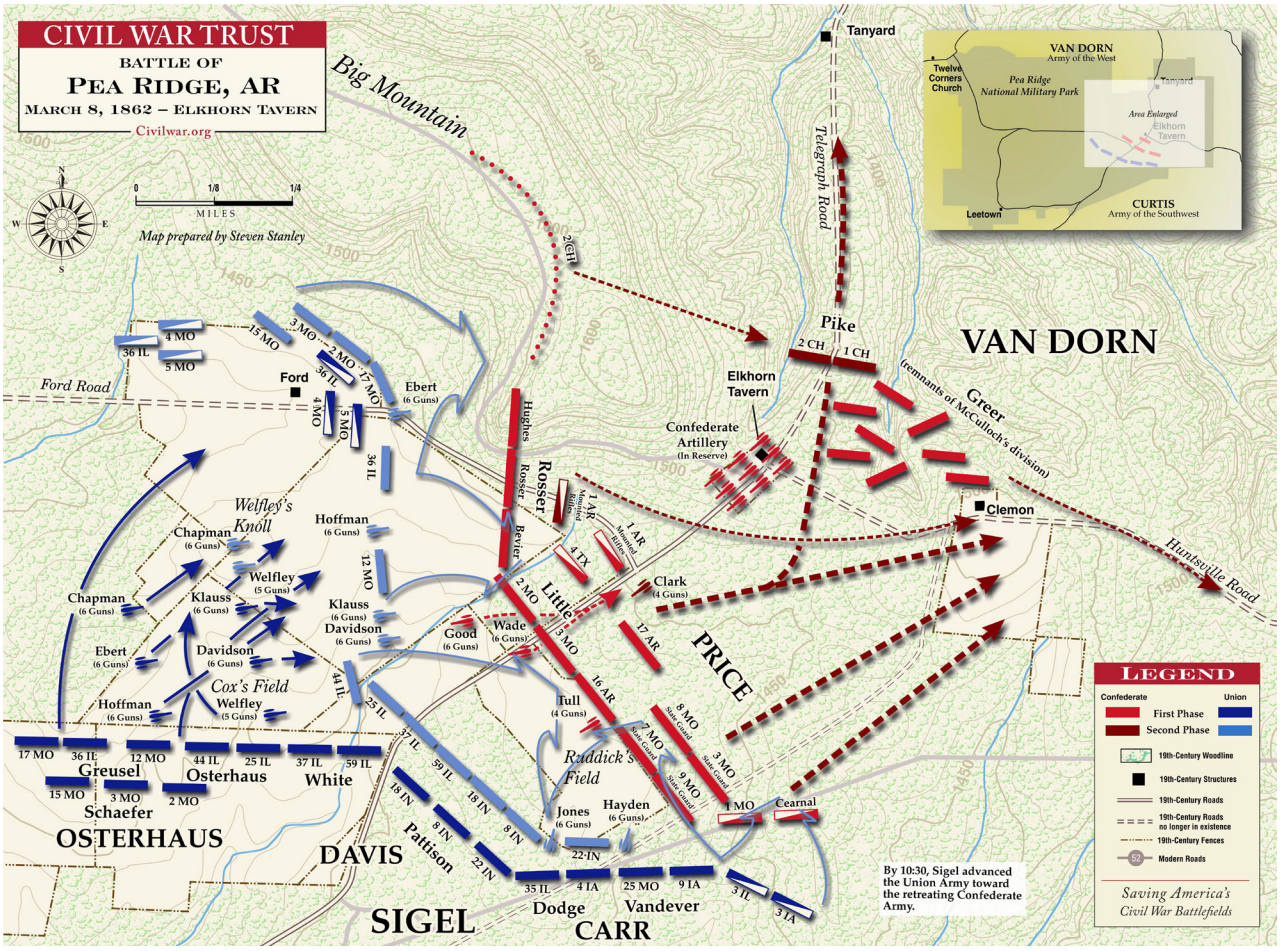


Figure 2-20. This diagram indicates troop movement on March 8, 1862, prepared by Steven Stanley for the Civil War Trust (Source: PERI and Civil War Trust).

1862, March 8

On the morning of March 8, Curtis counter-attacked Elkhorn Tavern. A two-hour artillery barrage crippled the Confederate line and a concerted infantry attack broke their defenses. Realizing that his ammunition was running low, Van Dorn ordered his troops to withdraw. The Battle of Pea Ridge was over.

Most Union and Confederate troops soon moved east of the Mississippi to fight in other campaigns. Missouri remained in the Union and was politically neutral throughout the war, although it provided men and supplies to both sides.

Post battle, 1862 March to April

Arkansas troops are moved out of the state to Tennessee.

Destruction, vandalism, and theft took place in northwest Arkansas while the armies were present, but far worse was the breakdown of law and order after the armies departed (until their return in the fall of 1862).[2.72] Deserters and stragglers from both armies and local criminals unleashed a reign of terror, unchecked by military authorities, sheriffs or constables, who had lost their backing. Many rural people left their ravaged homes and farms and became refugees.[2.73]

After the battle, Elkhorn Tavern became the headquarters of one of the Union commanders. Joseph Cox and his wife Lucinda moved to the home of Lewis Pratt, one mile southwest of Elkhorn Tavern, where they remained until the end of the war.[2.74] It is likely that James and Polly Cox and their other children moved to Kansas (where they also owned land) until after the war.

The whereabouts of the slaves during the remainder of the war is unknown. According to family reports, the former slaves lived with the Jesse Cox family after the war ended.[2.75]

1862, March 19

The last of Curtis' Union troops pulled out of Leetown Hamlet.

1862, April 6 to 7

Battle of Shiloh, Tennessee

1862 May 26

General Thomas Hindman of Helena, Arkansas, took command of the Confederate Department of the Trans-Mississippi and declared martial law in Arkansas.

1862, September

President Lincoln issued a preliminary draft of the Emancipation Proclamation.

1862, October

Elkhorn Tavern was used again as the headquarters of Brigadier General John M. Schofield, Union commander of the Southwestern District of Missouri, when he was in the battlefield area to prevent the Confederates to the south under Major-General Thomas C. Hindman from invading Missouri.[2.76]

2.72 NPS, Teachers Packet, 21.
2.73 NPS, Teachers Packet, 21.
2.74 Bond. The History of Elkhorn Tavern, 11.
2.75 Bond. The History of Elkhorn Tavern, 11.
2.76 Bond. The History of Elkhorn Tavern, 11.

1862, November to December

Elkhorn Tavern was used as headquarters of LTC Albert W. Bishop, commander of the First Arkansas Cavalry Volunteers (Union). During the time of Bishop's occupation, it was the last station on the military telegraph line running from St Louis, Missouri.[2.77]

The telegraph line enabled General Curtis to communicate with his commanders, when communications were being transmitted regarding the impending battle at Prairie Grove, Arkansas. The Union troops left for the battle of Prairie Grove in early December.[2.78]

1862, December 7

Battle of Prairie Grove, Arkansas.

1863

Elkhorn Tavern was burned by guerrillas/ bushwhackers after the Battle of Pea Ridge, leaving only the foundation and two chimneys sometime between April 26, and May 19, 1863.[2.79]

1865, April 9

General Robert E Lee surrendered to General Ulysses S. Grant at Appomattox Court House, Virginia.

1865, April 15

President Lincoln was assassinated at Ford's Theater.

1865, May 26

Confederate armies located west of the Mississippi River surrendered.

1865

After the Civil War, Leetown Hamlet was likely abandoned. It is probable that abandoned buildings were dismantled and removed, materials salvaged for use in other construction projects."[2.80]

"Pillaged or not, Leetown and similar small subsistence-based communities faced their end with the social and economic changes following the Civil War. While one can be certain that some of Leetown's residents left the settlement after the Civil War, we know that any semblance of a town was lost in 1881, when its residents probably left to work with the St. Louis and San Francisco railroad line being built twelve miles south of the site."[2.81]

2.77 Bond. The History of Elkhorn Tavern, 12.
2.78 Bond. The History of Elkhorn Tavern, 12.
2.79 CLI, 11. PERI NRHP, 2. Alvin Seamster. Burning of Elkhorn Tavern.

2.80 Herrmann, 12-13.
2.81 Herrmann, 13. Doug Keller, personal communication.



Figure 2-21. The Cox family owned the Elkhorn Tavern at the time of the Battle of Pea Ridge. The family sought refuge in the basement during the battle. The building served as headquarters for both the Union and the Confederates prior to, during and after the battle (Source: PERI).

After the Battle / Reconstruction (1865 to 1955)

This period begins with the end of the Civil War in 1865. The reconstruction period in the South was a long period of rebuilding and reestablishment of homes and farmland. At Pea Ridge, this included the reconstruction of Elkhorn Tavern and Winton Springs House, and reestablishment of barnyards, orchards, and farmland. Starting in the 1880s, efforts began to commemorate the battle, and several reunions were held in honor of the event. This period ends in 1955, just prior to the establishment of Pea Ridge National Military Park.

1865 to 1866

Elkhorn Tavern was rebuilt on top of the original Joseph Cox foundation shortly after the end of the war.[2.82] This building was a single-story wood-frame structure.[2.83]

The Bart Green house was built after the Civil War on top of one of the tanyard vats. It was removed after the park was established in the 1960s.[2.84]

1866

The Leetown Cemetery was established by this date. One engraved tombstone remains: Robert Braden, who was born Feb. 14, 1864, and died Feb. 5, 1866.

1879

By this date, Ford Cemetery had been established.

1880s

Elkhorn Tavern was modified with a second story.[2.85]

Two cabins were built approximately fifty-feet north of Elkhorn Tavern. Wallace Scott recalled these buildings to have been built by people building the St Louis and San Francisco railroad. It is also possible that they were built earlier and had been slave quarters.[2.86]

1887

Veterans of the Battle of Pea Ridge held a reunion on the site.

General Sigel, revisiting, noted that the house and barn at Elkhorn Tavern was still standing.[2.87]

September 1: The Monument to the Brave Confederate Dead was erected, bearing the names of three of the top Confederate commanders who were killed during the battle: McCulloch, McIntosh and Slack.[2.88]

1888

By this date, the tanyard had been removed or destroyed, except “the old vats” that had filled in with grass and bushes.[2.89]

Elkhorn Tavern Barn had been burned by 1888.[2.90] New barns and stables had been built on the east side of Telegraph Road, north of Elkhorn Tavern. The new barn was in the area where the blacksmith shop had been during the Civil War.[2.91]

2.82 CLI, 11.
2.83 NRHP, 2.
2.84 Bearss. Leetown, 6.

2.85 NRHP, 2.
2.86 Bearss. Leetown, 66.
2.87 Bearss. Leetown, 51.
2.88 NRHP, 3.
2.89 Bearss, tanyard, 1965, 6.
2.90 Bearss. Leetown, 66.
2.91 Ibid.



Figure 2-22. In 1880, a Civil War Veteran's Reunion was held at Elkhorn Tavern. The original building had been destroyed c. 1863, after the Battle of Pea Ridge. The building was rebuilt c. 1865, to 1866, as a single-story structure on the foundation of the original building (Source: PERI).



Figure 2-23. In 1880, a joint Union-Confederate Civil War reunion was held where the battle had occurred at Elkhorn Tavern. The Monument to A Reunited Soldiery was erected in honor of both sides, rear left of photograph. (Source: PERI).

1889

September 3 to 9: a dual Union-Confederate reunion occurred. A monument entitled "A Reunited Soldiery" was erected near Elkhorn Tavern, in honor of both sides of the war.

1890

According to John A. Shepherd, three houses stood in Leetown Hamlet in 1890. One was Standwix "Wix" Mayfield home, located west of Spring Branch Hollow. It was a two story, dog-trot structure. A barn was located south by southwest of the house, overlooking the ridge to Spring Branch Hollow. The granary was about 100 yards north. There was also a cistern.[2.92]

1903

A one-story addition of two rooms was attached to the rear and center of the main building of Elkhorn Tavern.[2.93]

1904 to 1915

Winton Springs House constructed.

Historic photographs indicate a pair of small stone well houses, located downhill from the main house. It is unknown if there are remains of these structures.

1905 to 1917

Elkhorn Tavern was modified by the addition of a rear wing, extension of the wall of the main wing, and remodeling of the front porch.[2.94]

1914

Arkansans made numerous efforts to establish a national military park; first in 1914, in 1924 to 1928, in 1936, and in 1939 to 1940.

1917

Elkhorn Tavern was lengthened to the north by six feet. The original rock chimney was removed and replaced by a brick chimney. The roof over the double porches was removed. The double porches were shortened and a high gable was extended over them.[2.95]

1924 to 1927

The Pea Ridge National Park Association was founded.[2.96]

1926

A veteran's reunion was held at Elkhorn Tavern.

1935

The U.S. Army Headquarters Monument was built near the park's boundary[2.97]

1937

Clemens' House was still standing.

A museum building was located near the site of Pratt's House/Store.

1940

An historic photograph indicates "Pea Ridge Tower," which appeared to be a fire lookout tower on top of Elkhorn Mountain.

1950s

A visitor center and museum building for the Battle of Pea Ridge was located near Pratt's House/Store (tour stop 2).

2.92 Bearss. Leetown, 88.
2.93 Bond. Elkhorn Tavern, 13.
2.94 NRHP, 2.
2.95 Bond. Elkhorn Tavern, 13.
2.96 Huggard. Administrative History, 28.
2.97 LCS, NPS, 3.

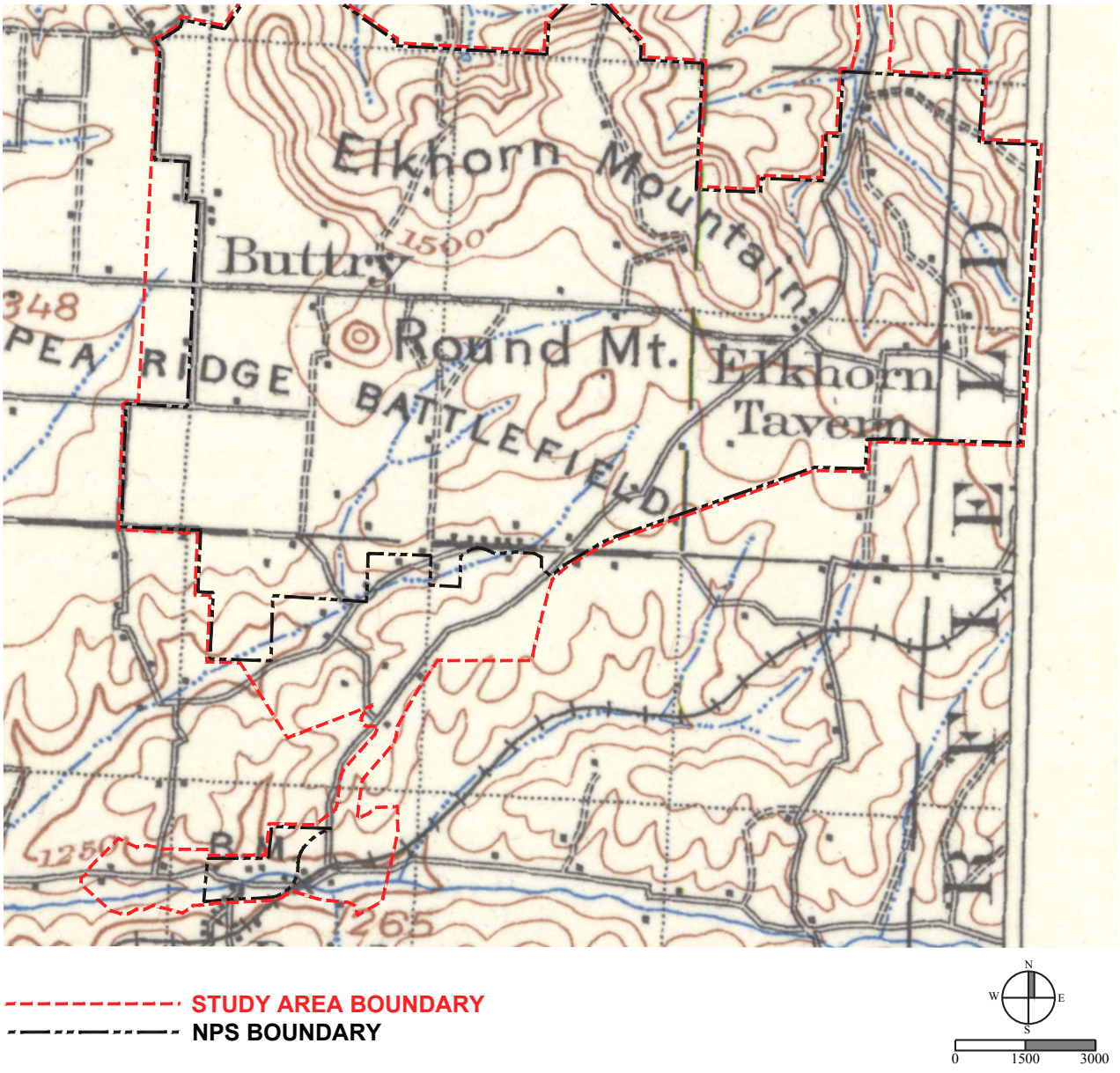


Figure 2-24. 1899 Fayetteville quadrangle (Source: USGS, annotation by MB).



Figure 2-25. A veteran's reunion took place in 1926, to commemorate the battle. Elkhorn Tavern had been modified again with the addition of a single-story kitchen behind (west) of the main building (Source: PERI).



Figure 2-26. Museum near site of Pratt's store in 1940 (Source: PERI).

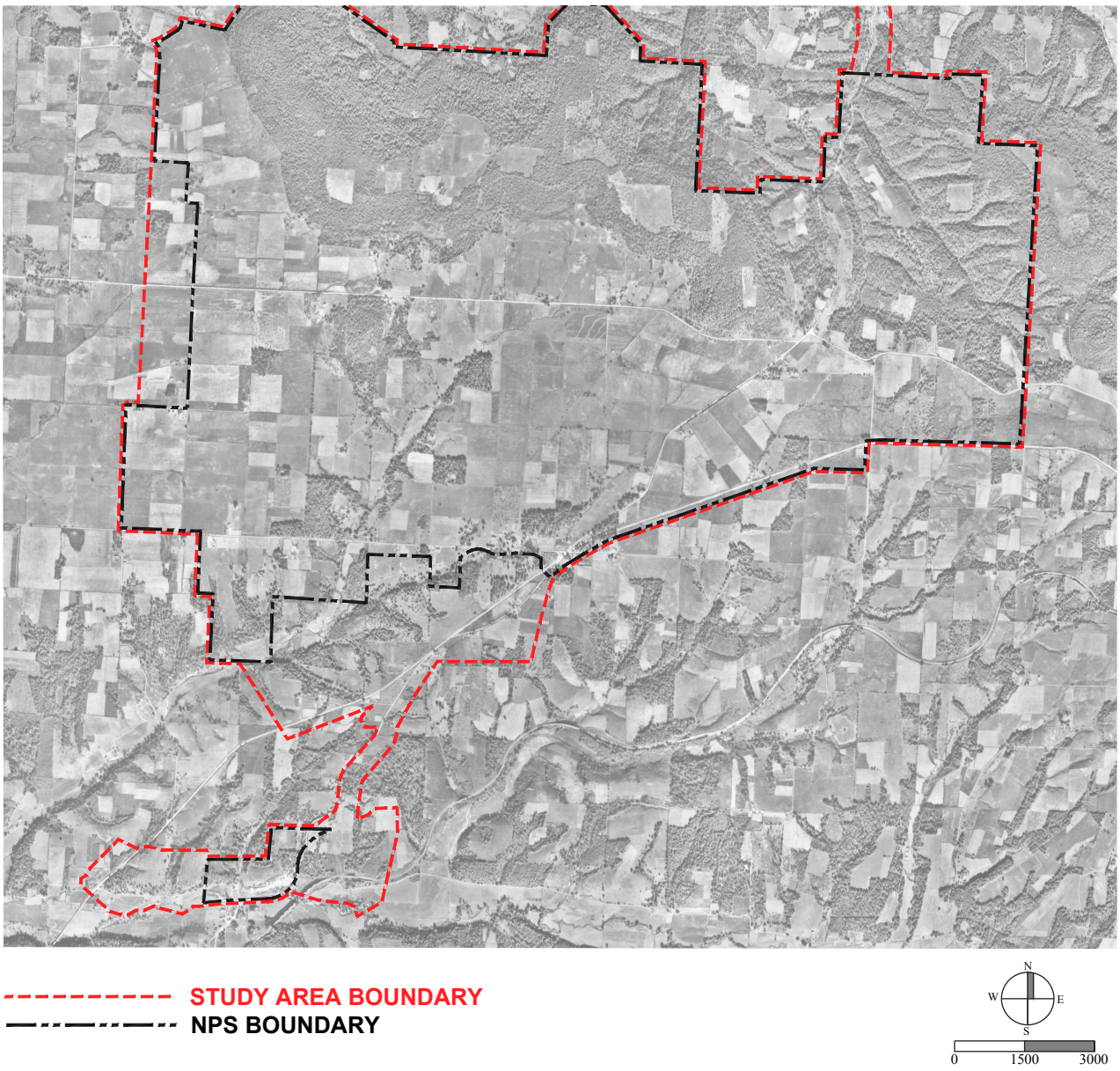


Figure 2-27. 1940s aerial (Source: MB 2013).

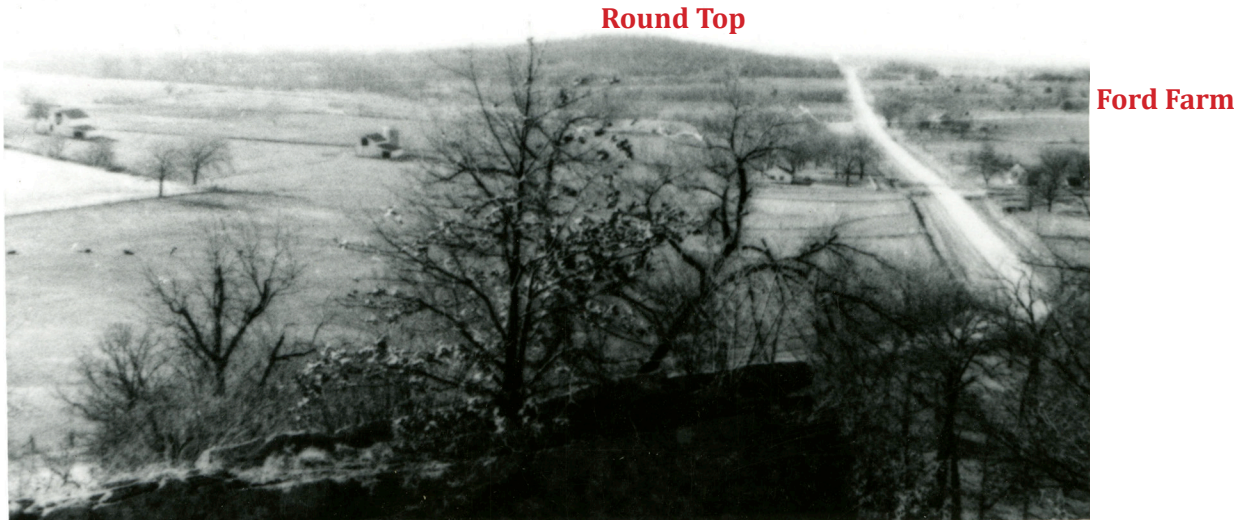


Figure 2-28. This 1940 view, from the approximate location of the present-day east overlook, shows the county road built along the alignment of Ford Road that would become Highway 72. The house and barns of Ford Farm flank the road (Source: PERI).

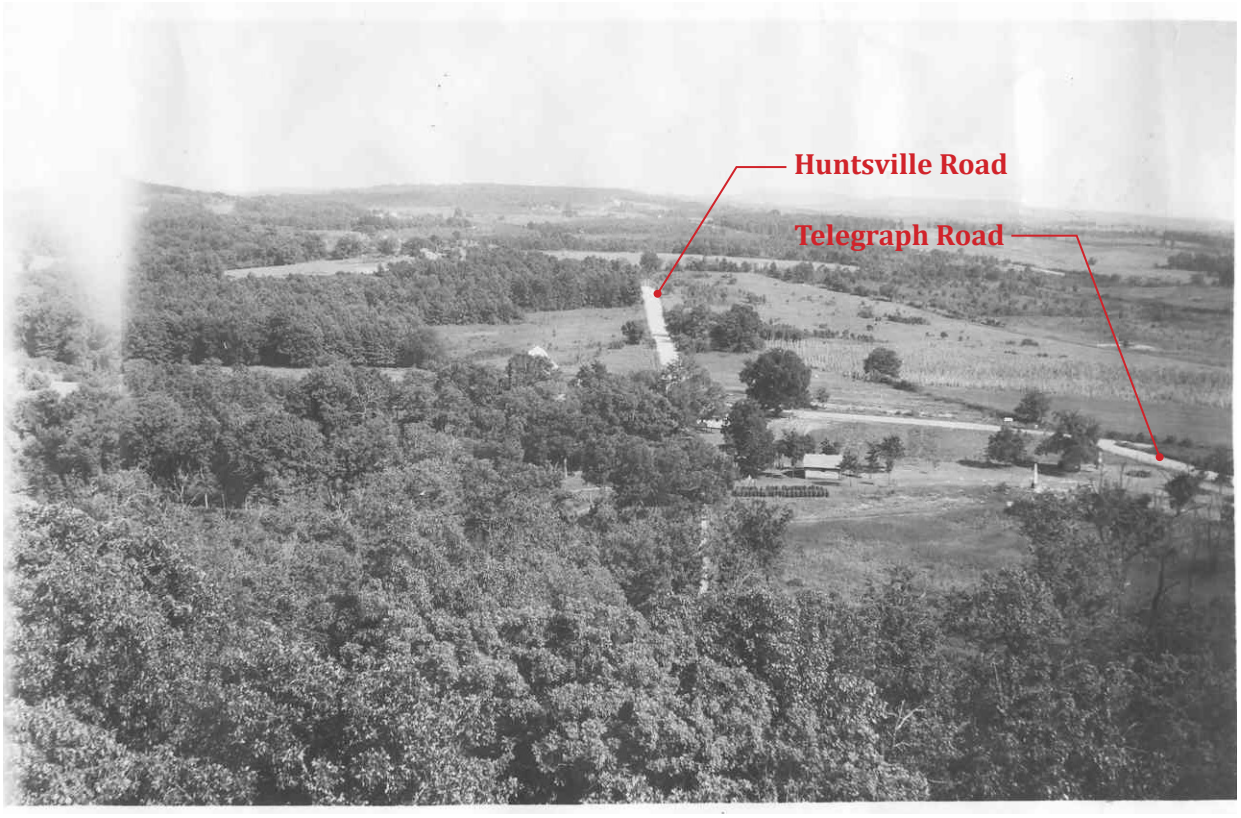


Figure 2-29. Looking southeast from Elkhorn tower in 1940, center of battle on March 8, 1862, the Union would have been on the right, the Confederate on the left. The small building in the foreground is the museum with the Elkhorn Tavern on left obscured by trees (Source: PERI).



Figure 2-30. By the 1960s, when the park was established, Elkhorn Tavern had been modified several times (Source: PERI).

Pea Ridge National Military Park (1956 to 1960s)

This period documents the establishment of the Pea Ridge battlefield as a national military park, and the planning and construction of the site as an area for visitor enjoyment. After years of lobbying and striving for national recognition, the park was established in 1956.

In 1960, the state of Arkansas purchased more than 4,000 acres of land and donated it to the federal government to be developed as a national military park. Between 1960, and 1965, the NPS developed and implemented a master plan to develop the area into a national park with a visitor center, Tour Road with interpretive stops, and preservation of the battlefield landscape. Buildings and structures that were deemed not to be a part of the battle story were removed. The park opened to the public in 1963. Construction of most park features was completed by 1965. This period ends in 1966, with the last of these improvements: the rehabilitation of Elkhorn Tavern to reflect its 1880s, appearance.

1956

Pea Ridge National Military Park was established when President Eisenhower signed the resolution into law on July 20, 1956.[2.98]

Several buildings from the Civil War were extant including a farmhouse at Clemens' farm, the Pierce Mayfield home in Leetown Hamlet, Elkhorn Tavern, and Winton Springs House amongst others. Several barns and outbuildings were extant.

Telegraph Road was a dirt-gravel road that followed its original alignment and retained the character it had during the Civil War for most of its length. U.S. Highway 62 followed the alignment of Telegraph Road for a few hundred feet south of the Pratt's House/ Store site. Huntsville Road was still in use, and served as a secondary dirt-gravel road.[2.99] A newly improved Arkansas Highway 72 traversed the boundary of the new national park. Talks ensued to re-route the state highway from within the park boundaries. [2.100]

Park staff recorded a well-marked woods trail or one-time road up the nose of the spur from Cross Timber Hollow just south of Williams Hollow and then southeast along the crest of the ridge to the old Huntsville Road east of the Clemens' Farm.[2.101]

A stone archway and sign for the Butterfield Overland Stage was posted in front of Elkhorn Tavern.

1957, March 8

The Arkansas state legislature passed a law creating the Pea Ridge Battlefield Park Commission.[2.102]

1950s

Winton Springs House was used as the superintendent's quarters.

1960

Winton Springs House was modified into two apartments to provide housing for park staff.

Elkhorn Tavern, and the associated land, was sold to the State of Arkansas by the Cox family, thereby becoming a part of the Pea Ridge National Military Park.[2.103]

The State of Arkansas donated this property to the National Park Service. Three years later, in 1963, Pea Ridge National Military Park was opened to the public.[2.104]

2.98 CLI, 11.

2.99 Boundary Report Authorized Historical Justification, Appleman and Bearss, December 1956, 16.
2.100 Ibid, 17.
2.101 Boundary Report Authorized Historical Justification, Appleman and Bearss, December 1956, 17.
2.102 Huggard, Administrative History, 49.
2.103 CLI, 12.
2.104 Ibid.

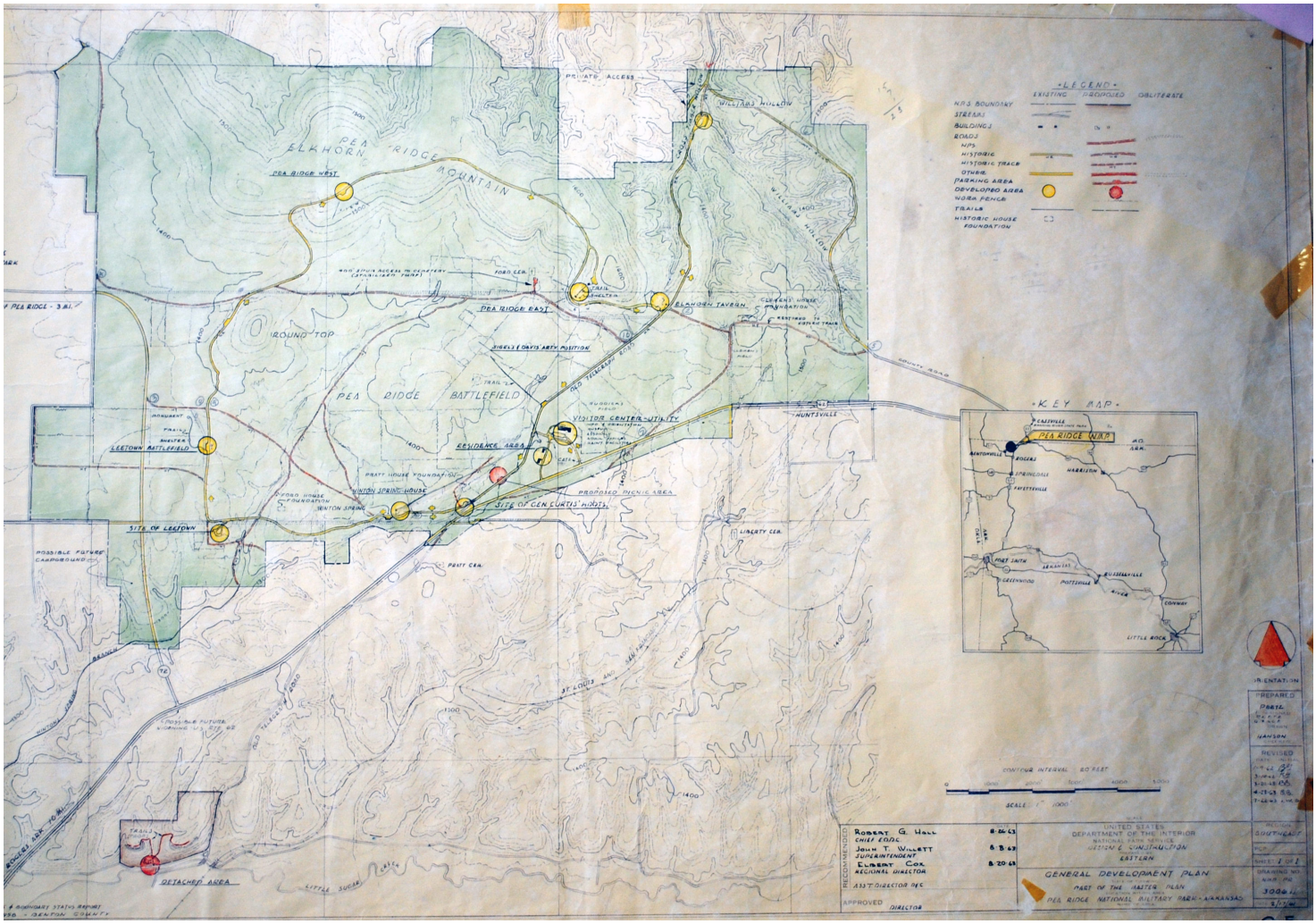


Figure 2-31. The General Development Plan for Pea Ridge National Military Park illustrates the extent of development envisioned by the NPS. The visitor center, Tour Road, and interpretive stops were built according to this plan. The road into Cross Timber Hollow that was never built. (Source: PERI).

1956 to 1966

The master plan for Pea Ridge National Military Park was completed during the Mission 66 program initiated in 1956, by the National Park Service with the intent that development would be completed by its 50th anniversary in 1966.

During this era, the "Mission 66 planners coined the term 'visitor center' to describe a new building type," sited and designed as a central facility for concentrated public use where visitors would park and access interpretation, restrooms, and administrative facilities. This trend facilitated "the vastly increased numbers of people (and their cars)" visiting our national parks following WWII as well as preventing potential destructive use.[2.105]

Design of new NPS facilities "embodied a distinctive new architectural style. . .described as Park Service Modern" influenced by European modern architecture and by 1950s architecture in the United States. These designs took "advantage of free plans. . .flat roofs (as well as other roof types), and other established elements of modern design. . . to create spaces in which larger numbers of visitors could circulate easily." Materials included the "use of concrete construction and prefabricated components, and often featured windows of unusual size, shape, and location. Unusual fenestration. . .was often used with great effect in Mission 66 visitor centers to provide generous views of scenic or historic areas. Some buildings. . . were (sited) to provide important views from within the building."[2.106]

1960 to 1964

The master plan was completed in 1963 and provided guidance for interpretation, recreation, visitor facilities, maintenance and staff facilities, and cultural and natural preservation strategies. The master plan consisted of drawings illustrating general development, utilities, road, trails, and buildings. Management plans for interpretation and vegetation treatment were also included.[2.107] The implementation of the master plan included the visitor center, Tour Road with interpretive stops and overlooks, employee residences, parking areas, plantings, and various other features.[2.108]

The vision for the visitor center was for the building to be visible to the arriving visitor and to offer a "panoramic view starting at Round Top, and traversing the full length of Pea Ridge to Elkhorn Tavern." The site would become "essentially wooded" to screen the building from the battlefield to the north.[2.109]

State-of-the-art utilities were envisioned including water from wells stored in a reservoir on the ridge west of Elkhorn Tavern, septic systems, heating and air conditioning, and electric and telephone systems that were to be modified to "preserve the scenic and historic qualities of the area by removing or relocating overhead lines."[2.110]

The Tour Road and interpretive stops were envisioned as an interior loop that would generally follow "historic traces and existing historic roads, with the exception of the road on Elkhorn Mountain that provided scenic overlooks with views of the battlefield."[2.111] Historic roads not part of this interior loop were envisioned to be preserved as historic traces, and contemporary roads not essential to park operations were to be obliterated.[2.112]

2.105 Sarah Allaback, Ph.D., Mission 66 Visitor Centers: The History of a Building Type (Washington, DC: Government Printing Office, 2000).
2.106 Allaback. Mission 66 Visitor Centers.
2.107 Huggard, Administrative History, 69.
2.108 CLI, 12.
2.109 1963 Master Plan, sheet G-4.
2.110 Ibid.
2.111 1963 Master Plan, sheet G-4.
2.112 Ibid.



Figure 2-32. Laying out the Tour Road in 1961 on Elkhorn Mountain (Source: PERI).



Figure 2-33. The 1960s road at Elkhorn Mountain (Source: PERI).

Trails were envisioned for interpretation, including one to view the earthworks at Little Sugar Creek.[2.113]

The master plan included a "Vegetative Treatment Plan" in which "grass lands or historic fields will be managed in accordance with good agricultural conservation practices. Management of wooded areas will follow good forestry practices."[2.114]

A site was selected near the relocated Arkansas Highway 72 for a potential future campground (but it was never built).[2.115] Other facilities were planned and never built, such as the shelters planned for tour stop 4.

The vision for the new national park included the removal of existing buildings and structures that the park considered unimportant and not directly related to the battle. The park removed the Pierce Mayfield house in Leetown Hamlet, a farmhouse at Clemens' Farm, a house and barn near the Federal Trenches, and likely several others.

1961

The Pea Ridge Memorial Association (PRMA) was founded. The group placed markers on historical sites connected with the battle but outside the area of the military park. These included Eagle Hotel in Bentonville, Potts Hill on old Telegraph Road, Dunagin's Farm, and Elm Springs.[2.116]

The Interpretive Prospectus for the park was completed.

2.113 1963 Master Plan, sheet G-8.
2.114 1963 Master Plan, sheet G-4.
2.115 Ibid.
2.116 Huggard, Administrative History, 60.

1962

A tree planting project installed 2,800 trees in the park. All trees were native species to the area.[2.117]

1963, May

In Leetown Hamlet, the Standwix 'Wix' Mayfield house, the last remaining structure, was razed with the approval of park superintendent John T. Willett.

2.117 Huggard, Administrative History, 88.

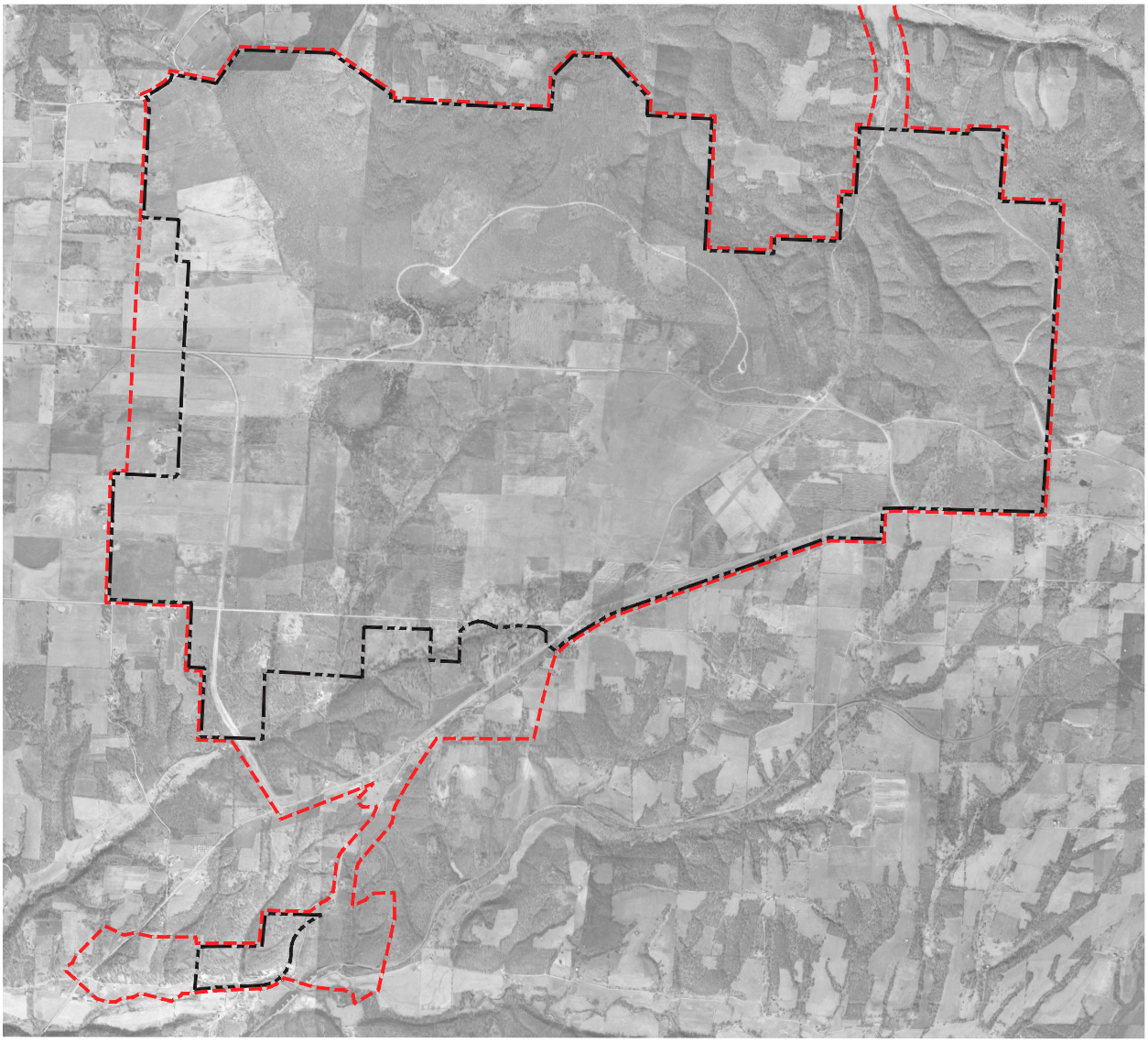


Figure 2-34. A 1960s aerial with the northern portion of the tour road visible (Source: MB 2013).

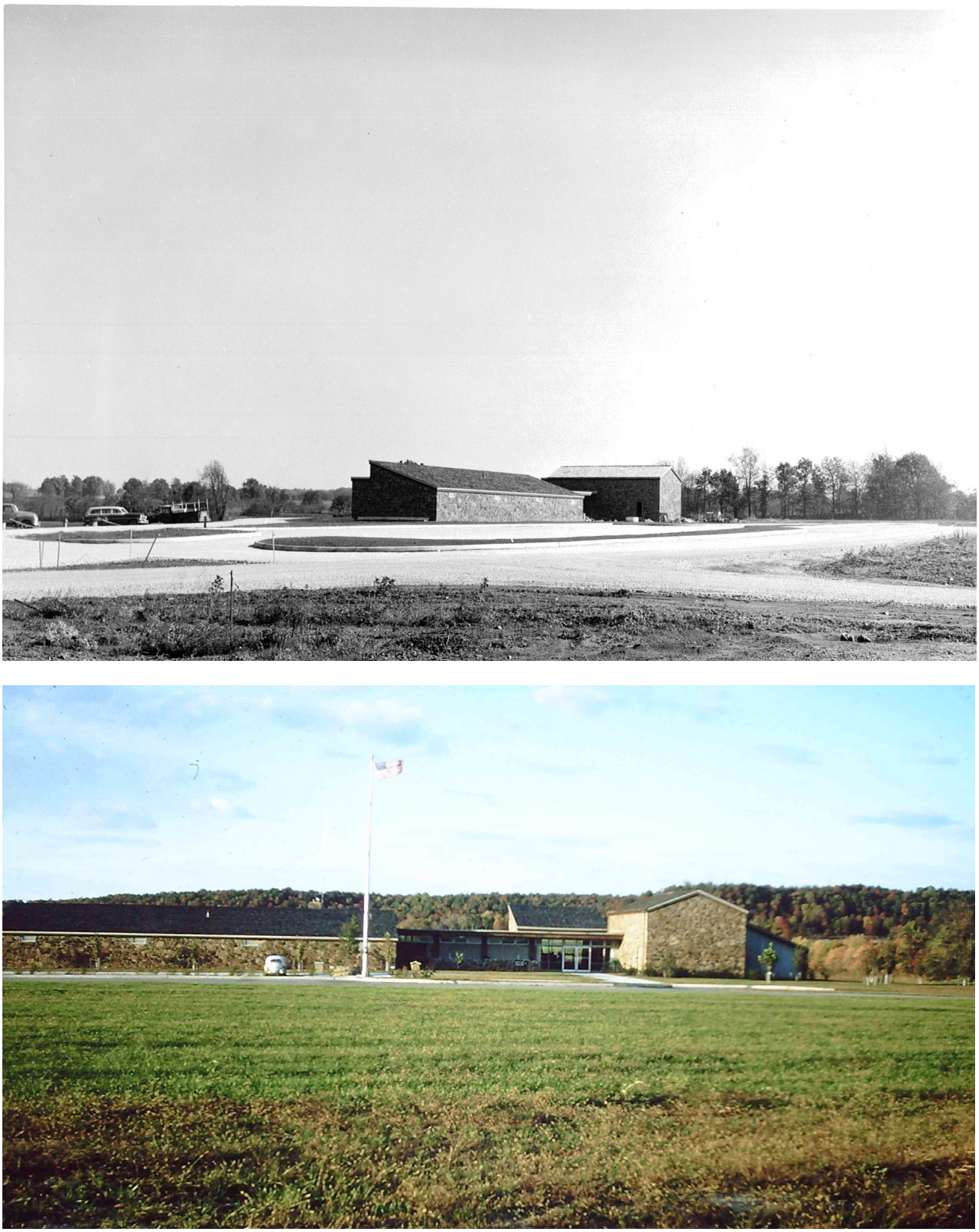


Figure 2-35. The visitor center, built as part of the NPS Mission 66 program, included a museum, administrative areas and maintenance facilities at the time of its opening in 1965. The roofline of the building would be modified in the 1990s due to frequent drainage problems (Source: PERI).

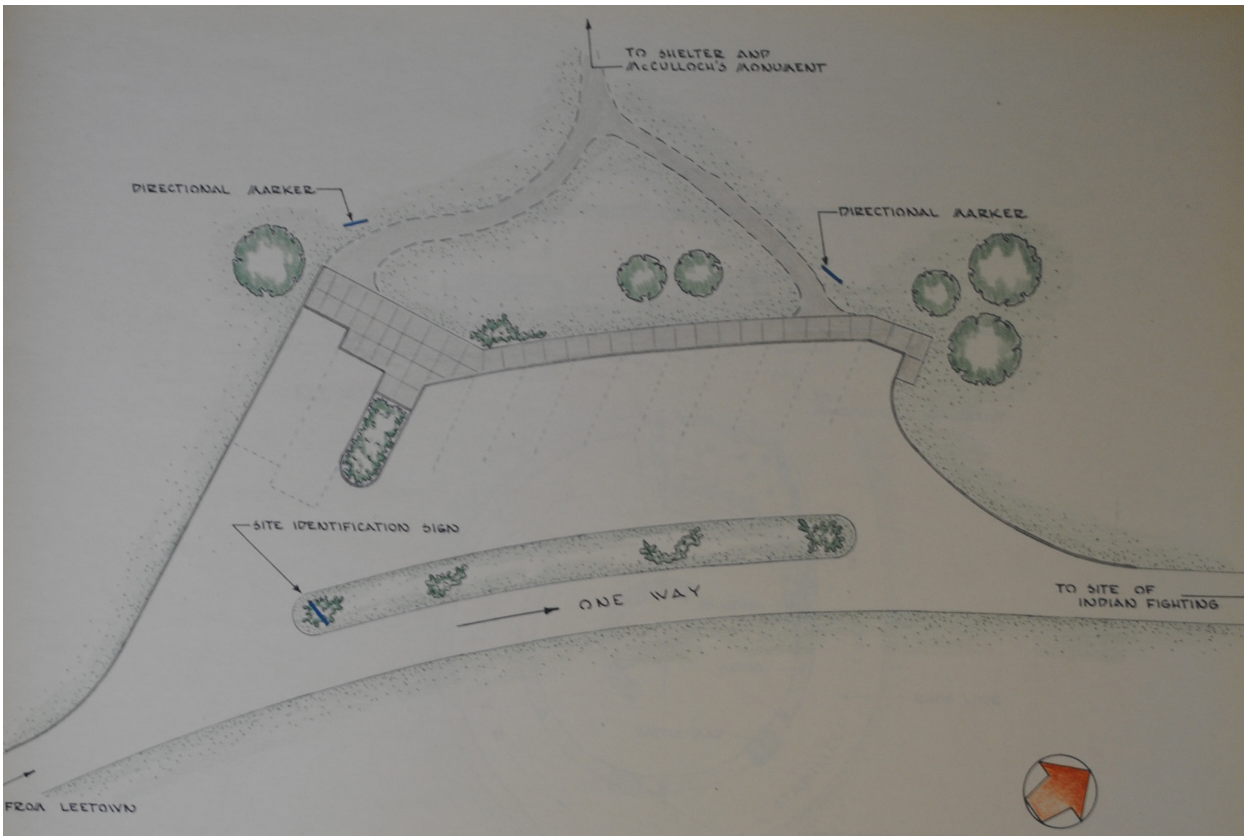


Figure 2-36. The interpretive stops along the Tour Road included Leetown Battlefield (Source: PERI).



Figure 2-37. Stairs between the east overlook and Elkhorn Tavern (Source: PERI).



Figure 2-38. Improvements to Elkhorn Tavern as part of 1963 master plan and Mission 66 program included an interpretive stop (non-extant) and path (Source: PERI).



Figure 2-39. A 1960s, view from U.S. Highway 62 to the visitor center and two staff housing buildings, both built as part of the 1963 master plan and Mission 66 program (Source: PERI).



Figure 2-40. In 1965, NPS archeologist Rex Wilson investigated Leetown Hamlet to locate extant remains of buildings or other features within the former village. Excavations consisted of a number of parallel trenches that covered the assumed location of the Masonic Lodge building but revealed no remains of structures (Source: PERI).

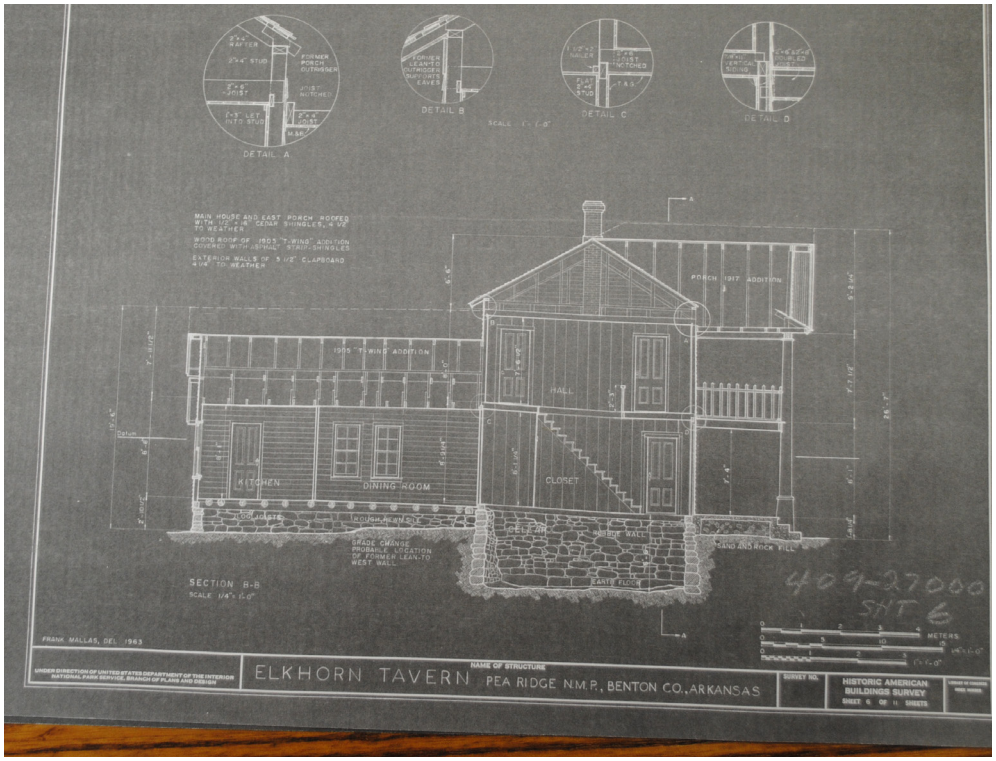


Figure 2-41. In 1966, NPS rehabilitated the Elkhorn Tavern to resemble its 1880s appearance. HABS work documented the building (Source: PERI).

1963

Pea Ridge National Military Park opened to the public for self-guided tours. Elkhorn Tavern was damaged by arson.[2.118]

1964

With the exception of the chimneys, the above-grade structure of Elkhorn Tavern was demolished due to its deteriorated condition and, according to NPS historians at the time, the historically inaccurate modifications.

The building was rebuilt to reflect its 1880s, appearance using historic photographs. The two extant chimneys were repaired as was the 1865, stone foundation (thought to have been rebuilt by the Cox family in 1865, using original stone). The reconstruction took five years.[2.119]

1965

The visitor center and administrative facilities were completed and opened to the public.

Sixty acres were added to the park to include the area of the Federal Trenches.

Archeologist Rex Wilson of the NPS investigated Leetown Hamlet, Elkhorn Tavern and the tanyard. Excavations consisted of a number of parallel trenches covering the assumed location of the Masonic Lodge building and Leetown Cemetery. Wilson found evidence of seventeen graves in the cemetery but no remains of structures in the town site.

The Winton Springs House was in disrepair. Problems with the well water led to recommendations for the building's removal.

1966

The NPS finished rehabilitating Elkhorn Tavern to reflect its 1880s, appearance.[2.120]

2.118 Statement for Management, 1992.
2.119 Statement for Management, 1992.
2.120 GMP/EIS, 68.



Figure 2-42. Winton Springs House was used as staff housing in the 1960s, and 1970s, but was in disrepair by the 1970s. The building was demolished in 1993 (Source: PERI).



Figure 2-43. Winton Springs House during demolition in 1993 (Source: PERI).

Present Day (1967 to present-day)

This period includes recent developments within the park including modifications to the visitor center, administrative and maintenance facilities and to the Tour Road and trails. Planning and design projects were developed to preserve cultural and natural resources. Modifications have included improving visitor access to resources, increasing biodiversity, and undertaking archeological investigations to reveal information about the battlefield landscape.

During this period, additional planning documents were developed to guide park management. These include the General Management Plan, Fire Management Plan, Long-Range Interpretive Plan and Vegetation Management Plan.

1970, April 30

A tornado ripped through the park damaging the Winton Springs House, surrounding trees, grounds and the Tour Road.[2.121]

1973

The horse trail was built.

March 1973

The Historic Structures Report for Winton Springs House revealed that the house may have been present during the Battle of Pea Ridge.[2.122] The study concluded that the building, in a different form, was present during the battle. "The building's stone foundation and perhaps the ten-inch logs that were mortised into hewn timber predated the present (1973) structure, which had been renovated in 1915."[2.123] The study also noted the importance of the building to the region. "The house is an example of a style and grandiose scale of rural residential architecture which is in a class by itself in the Ozark Region. No other example of this type of structure are known to exist in the area."[2.124]

Despite this, Superintendent Bienvenu recommended the removal of the Winton Springs House that had served as administrative facilities for the NPS and as employee housing.[2.125]

1970

A new roof was installed on the visitor center.[2.126]

1975

Native prairie was established in the northwest portion of the park, beginning with a one acre plot that was expanded in following years.[2.127]

1976

Winton Springs House was ordered by the Regional Safety Officer and the Public Health Officer to no longer be used as housing until extensive modifications were accomplished.

1980s

Pedestrian paths and improvements were made to the area surrounding the two commemorative monuments near Elkhorn Tavern.[2.128]

1984

A new boiler was added to the visitor center.

2.121 Huggard, Administrative History, 177.
2.122 Huggard, Administrative History, 175.
2.123 Huggard, Administrative History, 178.
2.124 Huggard, Administrative History, 178.
2.125 Huggard, Administrative History, 175.
2.126 Park archives.
2.127 Huggard, Administrative History, 172.
2.128 NPS PERI archives, historic photographs.



Figure 2-44. The concrete walkway around the monuments was built in the 1980s (Source: PERI).

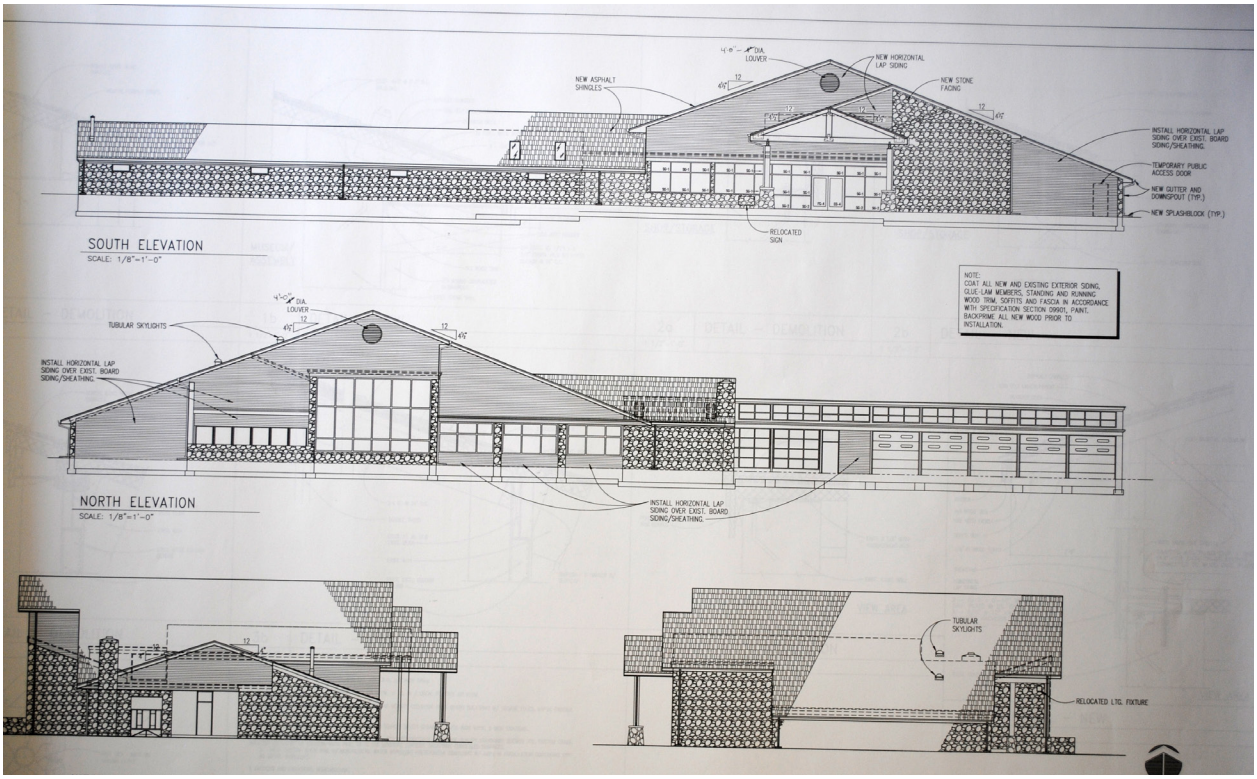


Figure 2-45. The roof construction in 2000, modified the appearance of the visitor center from the original Mission 66 aesthetic (Source: PERI).

1989

New walls and improvements to interior spaces of the visitor center were made, and a new electric panel was added.

1988 to 1989

Repairs were made to the Tour Road.[2.129]

1989

New walls and an electric panel were added to the visitor center.

1993

The cost to repair Winton Springs House was determined to be prohibitive based on a 1976 report. The building was razed in 1993.[2.130] During demolition, materials and craftsmanship were revealed that may date the building to the Civil War. This discovery resulted in a halt to demolition, and a remnant of the building to be left in place.[2.131]

Trail of Tears National Historic Trail was established. This included the portion of the trail within Pea Ridge National Military Park along Telegraph Road.

2000

Modifications were made to the visitor center that changed its original Mission 66 aesthetic. A new facade was added and the roofline was extensively modified. A pitched roof was placed over the main portion of the building, enclosing the original flat roofed portions and creating additional interior space. This new space extended the front of the building to the south, and included more exhibit and gift shop space. Fire protection was added to the building.

Power lines were placed underground.

2001 to 2003

Archeological investigations were undertaken of the battlefield by the NPS-MWAC.

In late March 2003, William Volf (2004) directed an electric resistance survey of an eighty by twenty meter area of Leetown Hamlet. Two possible building footprints were identified but they were not conclusive.[2.132]

2004

Dr. Douglas Scott of the NPS-MWAC and Dr. Marvin Kay of the University of Arkansas directed archaeological surveys within the park.

Scott's investigations focused on distributions of artillery and other munitions left from the battles. This involved metal detector surveys over the battle and skirmish lines to test the historic accounts of troop positions.

2005

The Fire Management Plan was developed to cultural and natural resources from wildland fires, and to restore and maintain the forest community to its battle era appearance. The plan recommended reducing hazard fuels by prescribed fires, and non-fire mechanical treatments to remove excess fuel along the park-urban interface and near structures within the park.

2006

The GMP/EIS was developed to guide the management of the park. The plan outlined specific resource conditions and visitor experiences desirable for the park, and proposed management strategies for achieving those goals.

2.129 Huggard, Administrative History, 222-223.
2.130 Huggard, Administrative History, 181.
2.131 Interview with current Park Staff.
2.132 Herrmann, Interpreting Leetown, 7-8.

2012

The LRIP outlined recommendations for future interpretive services, facilities and media.

The CLI recorded extant features that contribute to the cultural landscape and recommended these be preserved and maintained.

2013

The NPS-MWAC conducted an archeological inventory and evaluation of four proposed alternatives for the U.S. Highway 62 realignment project within the park in May 2013.[2.133] Metal detection investigations focused on the four alternate routes and the five proposed parking areas, along with additional shovel tests in the locations of four proposed parking areas in the vicinity of Elkhorn Tavern and the horse trailer parking areas along U.S. Highway 62. The purpose of the investigations was to provide baseline database to evaluate the presence and preservation of buried archeological resources associated with the Battle of Pea Ridge and associated agricultural operations representative of the historic use of these areas.

The archeological investigations indicated the presence of battle-related and historic artifacts along all four alternatives, Tour Road, and in the vicinity of the proposed parking areas associated with the alternatives in front of the visitor center. Only the eastern-most proposed horse trailer parking area (Horse Trailer Parking Area Alternative A) on the south side of U.S. Highway 62 yielded battle-related and other historic artifacts. In the four alternative project areas where the rerouting of the Tour Road is proposed, no battle-related or subsequent historic features were identified. The possibility for such features is extremely low. The two proposed horse trailer parking areas lack significant information concerning the battle and historic farming activities. The proposed parking area associated with Alternative A and B also did not yield significant information concerning the battle or historic farming activities.

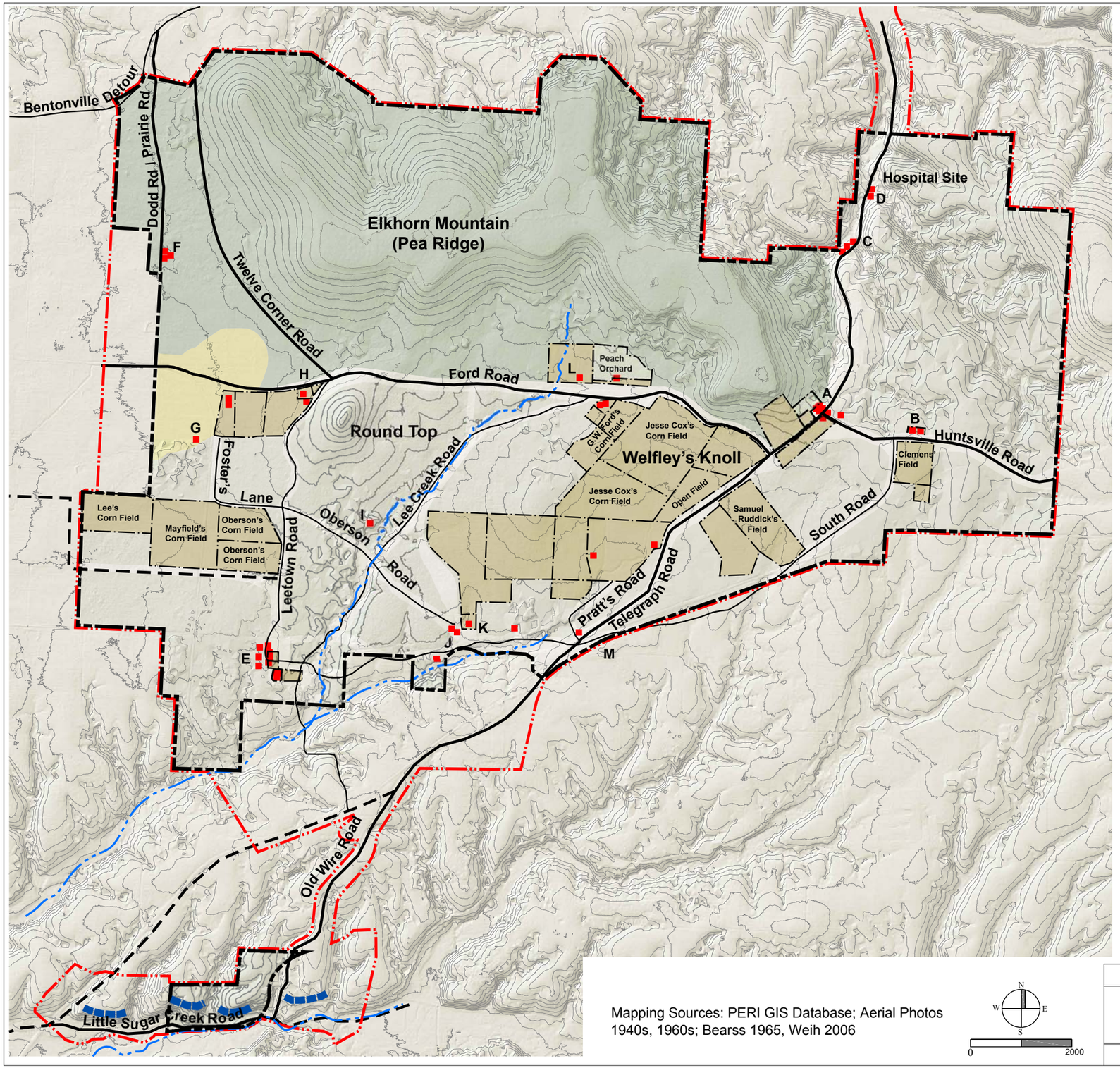
Only the proposed parking area associated with Alternatives C and D yield significant information concerning the Ruddick farm site. Features included stone foundation and a large depression.

The Cox farm site south of Ruddick's field yielded significant information concerning the battle and historic farming. Battle-related artifacts at the Cox farm site suggest the possible location of the Union cannon, and features associated with farming activities.

2014

The Vegetation Management Plan (VMP) was completed in 2014.

2.133 De Vore, Steven L. "Intensive Archeological Inventory. with Metal Detectors and Shovel Testing of Four Alternative Actions for the Federal Highway Administration's Park Mitigation Actions Associated with the Proposed U.S. Highway 62 Rerouting Construction Project at Pea Ridge National Military Park, Arkansas: A Preliminary Summary of Results," National Park Service, Midwest Archeological Center, 2013, p. 5-6.



Legend

- Park Boundary
- Study Area Boundary
- Topography
- Federal Trenches
- Road
- Stream
- Fence Line
- Prairie
- Fields/Pastures
- Orchard
- Woodlands
- Open Forest - Along Roads
- Buildings and Structures

Places

A Elkhorn Tavern - Elkhorn Tavern, Barn, Outbuildings, Spring Box
B Clemens' Farm - Clemen's House and Clemen's Barn
C Tanyard
D Unidentified
E Leetown Hamlet - Lee House, Masonic Lodge, 12 buildings/structures
F Amos J Patterson
G Wiley Foster
H Sturdy Cabin
I Log Cabin (Morgan's Woods)
J Winton Springs House
K J. Ruddick
L Ford Farm / Ford Cemetery
M Pratt's House / Store

PERI 409 125965

Figure 2-46.

Mapping Sources: PERI GIS Database; Aerial Photos 1940s, 1960s; Bearss 1965, Weih 2006

N W E S

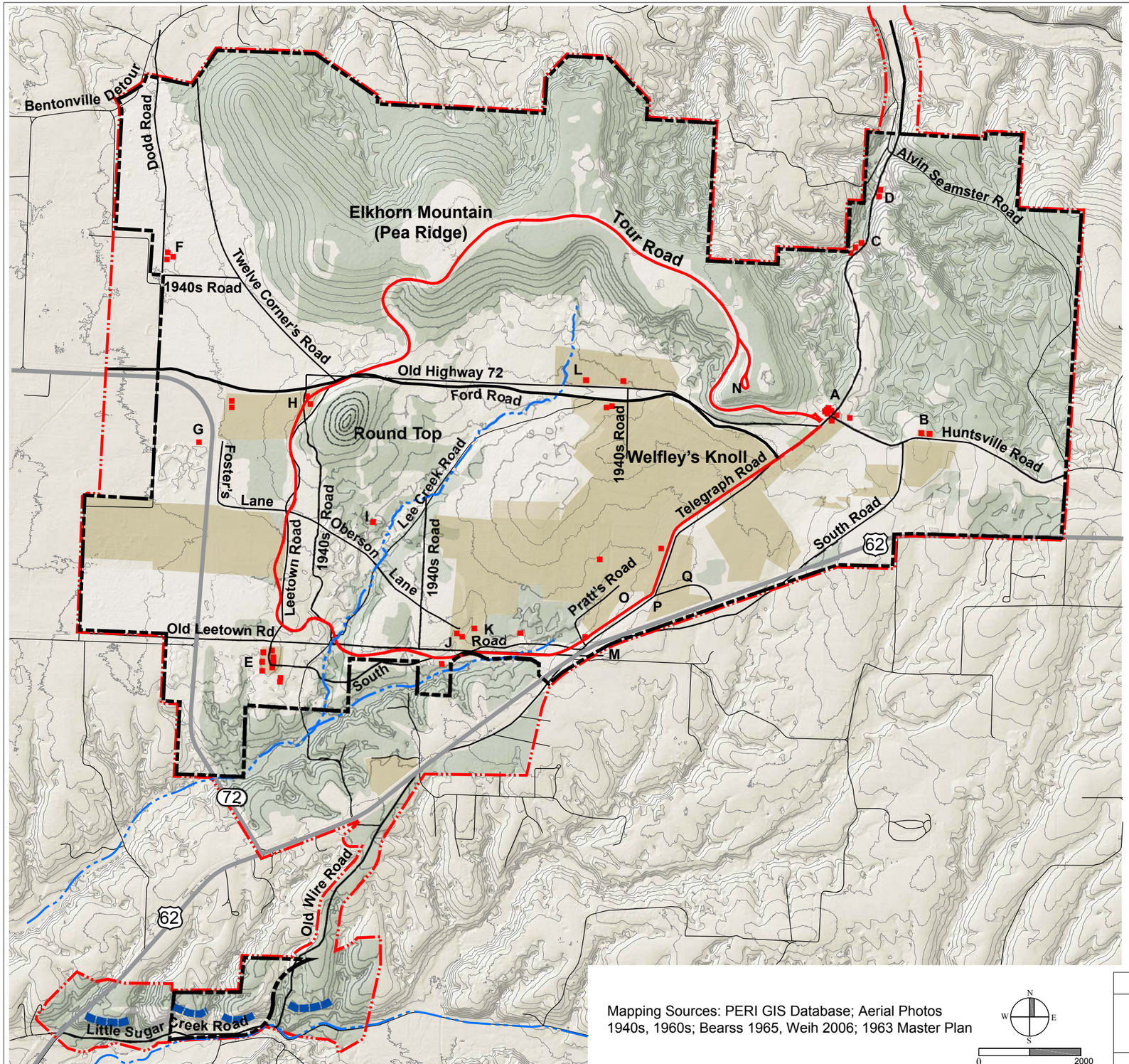
0 2000

AUGUST 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
PEA RIDGE NATIONAL MILITARY PARK

TITLE OF PROJECT
CULTURAL LANDSCAPE REPORT
AND ENVIRONMENTAL ASSESSMENT
TITLE OF DRAWING
THE BATTLE OF PEA RIDGE (1862-1865)
NAME OF PARK
PEA RIDGE NATIONAL MILITARY PARK

REGION	COUNTY	STATE
MIDWEST	BENTON	ARKANSAS



Legend

- Park Boundary
- Study Area Boundary
- Topography
- Federal Trenches
- Roads
- Highways
- Tour Road
- Historic Road
- Stream
- Fields/Pastures
- Orchard
- Woodlands
- Open Forest - Along Roads
- Buildings and Structures

Places

A Elkhorn Tavern - Elkhorn Tavern, Barn, Outbuildings, Spring Box
B Clemens' Farm
C Tanyard
D Unidentified
E Leetown Hamlet - Lee House, Masonic Lodge, 12 Buildings/Structures
F Amos J. Patterson
G Wiley Foster
H Sturdy Cabin
I Log Cabin (Morgan's Woods)
J Winton Springs House
K J. Ruddick
L Ford Farm
M Pratt's House/Store
N NPS east overlook
O NPS maintenance
P NPS housing
Q NPS visitor center

Mapping Sources: PERI GIS Database; Aerial Photos 1940s, 1960s; Bearss 1965, Weih 2006; 1963 Master Plan

N W E S

0 2000

AUGUST 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
PEA RIDGE NATIONAL MILITARY PARK

TITLE OF PROJECT
CULTURAL LANDSCAPE REPORT
AND ENVIRONMENTAL ASSESSMENT
TITLE OF DRAWING
NATIONAL MILITARY PARK (1956-1966)
NAME OF PARK
PEA RIDGE NATIONAL MILITARY PARK

REGION	COUNTY	STATE
MIDWEST	BENTON	ARKANSAS

PERI 409 125965

Figure 2-47.

Chapter 3. Existing Condition Assessment and Landscape Analysis

Introduction

The evaluation of the existing condition of Pea Ridge National Military Park's cultural landscape is presented in this chapter, accompanied by the analysis of its integrity. The existing condition assessment provides an overview of the current physical condition of the cultural landscape. The analysis evaluates the significance and integrity of the cultural landscape by assessing each characteristic within the context of the landscape as a whole. This is accomplished by evaluating the 2013 physical conditions against the condition of the 1862 to 1865 landscape.

The assessment and analysis were undertaken to understand the cultural landscape, to document individual features that contribute to its significance, and to determine those qualities that contribute to its historic character. These were conducted in June 2013 using GIS data and base files provided by the park. Field investigations were used to document the physical condition of the cultural landscape. GPS points taken during field investigations assisted in locating some features.

The existing condition assessment and landscape analysis for the study area is presented first, followed by documentation for each of the landscape character areas—Leetown Hamlet, the Federal Trenches, and Elkhorn Tavern / Williams Hollow.

Narrative text, diagrams and photographs describe and graphically illustrate both existing conditions and analysis. Existing Condition plans for the study area and each landscape character area are included. A separate database has been provided to the park in GIS format that includes the condition assessment.

The existing condition of features are recorded as good, fair or poor, based on the following criteria.

Good – Those features of the landscape that do not require intervention. Only minor or routine maintenance is needed at this time.

Fair – Some deterioration, decline, or damage is noticeable. The feature may require immediate intervention. If intervention is deferred, the feature will require extensive attention in a few years.

Poor – Deterioration, decline, or damage is serious. The feature is seriously deteriorated or damaged or presents a hazardous condition. Due to the level of deterioration, damage or danger, the feature requires extensive and immediate attention.

Landscape Characteristics

Existing features are organized according to landscape characteristics. The description of the park's existing condition evaluates individual landscape systems and features according to these characteristics.

For the study area, the applicable landscape characteristics include natural systems and features, archeological sites, land use, spatial organization, topography and landform, views and vistas, circulation, buildings and structures, small scale features, vegetation, and constructed water features.

The landscape analysis compares the historic condition to the current, and identifies landscape characteristics that retain integrity and contribute to the significance of the landscape.

Natural Systems and Features are the natural aspects that have influenced the development and physical form of Pea Ridge National Military Park.

Archeological Sites are the ruins, traces or deposited artifacts in the landscape, evidenced by the presence of either surface or subsurface features. The identification of archeological sites is provided by the NPS through documented investigations and excavations, studies, and monitoring reports.

Land Use is the organization, form and shape of the landscape in response to land use.

Spatial Organization is the arrangement of elements creating the ground, vertical and overhead planes that define and create space. These include the arrangement of topography, circulation, buildings, small scale features (i.e. as fences, and vegetation).

Topography and Landform is the three-dimensional configuration of the landscape surface characterized by features and orientation. These include natural formations, rock outcroppings, cut and fill slopes and other man-made topographic features.

Views and Vistas are features that create or allow a range of vision. These elements can be natural or those that are designed and controlled.

Circulation is comprised of the features that constitute systems of movement. These include vehicular routes such as roads and highways, equestrian routes such as the horse trail, and pedestrian routes such as trails and walkways.

Buildings and Structures are habitable features that exist or were in existence historically. Smaller non-habitable, present-day or historic buildings and smaller structures are described as structures. These include shelters, remnant foundations, and the monuments and spring box at Elkhorn Tavern.

Small Scale Features are the human-scaled elements that provide detail combined with function and aesthetics such as fences and walls.

Vegetation is indigenous or introduced trees, shrubs, vines, ground covers, and herbaceous materials.

Constructed Water Features are man-made features that move, store or otherwise control potable and non-potable water. These include the pond at the quarry and the stock pond.

Contributing and Non-Contributing Features

Contributing features are individual elements and other characteristics that remain from the period of significance. Individual features that contribute to the significance of the Park include buildings and structures, remnants of former structures, small scale features, and vegetation.

Non-Contributing features are those that have been added to the cultural landscape since the end of the period of significance. They do not assist in maintaining the historic character. Some non-contributing features are compatible with the historic character of the cultural landscape.

Tables 3-1, 3-2, and 3-3 illustrate the contributing and non-contributing features of Pea Ridge NMP. Table 3-1 includes roads and trails for the study area, Table 3-2 includes buildings and structures for the study area, and Table 3-3 includes features located within each landscape character area.

Table 3-1: Study Area
Contributing and Non-Contributing Roads

Roads	Contributing	Non-Contributing	Undetermined
Tour Road		X	
Old Highway 72		X	
Highway 72		X	
U.S. Highway 62		X	
Ford Road	X		
Foster's Lane	X		
Oberson Road	X		
Winton Springs Road		X	
from Lee Creek to tour road	X		
from tour road to Winton Springs House site		X	
from horse parking area to Lee Creek	X		
Leetown Road			
north south from tour road to Ford Road	X		
north south through Leetown Hamlet	X		
east from Leetown Hamlet	X		
Lee Creek Road	X		
Old Leetown Road	X		
County Roads			
1 - west PL to Visitor Center		X	
2 - north south, parallels Leetown Road		X	
3 - north south, tour road to Winton Springs		X	
4 - short south spur off Ford Road		X	
5 - east west at Ford Road		X	
Pratt's Road	X		
Telegraph Road	X		
Butterfield Overland Stage	X		
Trail of Tears	X		
Williams Hollow	X		
Tour Road		X	
road trace west of Ford Road	X		
to Little Sugar Creek (Old Wire Road)	X		
Huntsville Road	X		
South Road			
Leetown Hamlet to Clemens' Farm	X		
Leetown Road to visitor center	X		
Visitor Center / Pratt's House / Store to U.S. Highway 62			X
Ruddick's Road the U.S. Highway 62 to Huntsville Road	X		
Alvin Seamster Road		X	

Table 3-2: Study Area
Contributing and Non-Contributing Buildings, and Structures

Buildings and Structures	Contributing	Non-Contributing	Undetermined
Visitor Center		X	
Administrative Facilities		X	
Maintenance Facilities		X	
east overlook shelter		X	
Winton Springs House foundation	X		
Log Cabin (Morgan's Woods)			X
House foundation (tour stop 2)		X	
G.W. Ford House and Barn and outbuildings - (archeological site)			
Wallace Scott House		X	
Radium Rice House		X	
Pratt's House / Store			X
J. Ruddick - one structure (archeological site)			X
Patton House		X	
Wiley Foster - two structures (possible remnants)	X		
Amos J. Patterson - three structures (possible remnants)	X		
Sturdy Cabin - one structure (archeological site)	X		
Unidentified - four structures			X
Matthews House / Ray-Galen House		X	
Ray- Gaylen House		X	

Table 3-3: Landscape Character Areas
Contributing and Non-Contributing Roads, Buildings, and Structures

Leetown Hamlet	Contributing	Non-Contributing	Undetermined
Mayfield House	X		
Masonic Lodge			X
Foundation	X		
Leetown Cemetery	X		
Federal Trenches	**Contributing**	**Non-Contributing**	**Undetermined**
Trenches	X		
Elkhorn Tavern	**Contributing**	**Non-Contributing**	**Undetermined**
Elkhorn Tavern	X		
Elkhorn Tavern Barn	X		
Clemens' House	X		
Clemens Log Barn (Log Barn in NRHP nomination)	X		
tanyard house foundation			X
Monument to Brave Confederate Dead	X		
Soldiers Reunited Memorial	X		
Spring Box at Elkhorn Tavern	X		
tanyard Well			X

Assessment of Integrity

The cultural landscape of Pea Ridge National Military Park retains integrity in location, design, setting, feeling and association as one of the nation's best preserved Civil War battlefields. The Federal Trenches also retain integrity in materials due to the extant earthwork fortifications built during the battle.

Integrity is the ability of a property to convey its significance, and is grounded in a property's physical features and how they relate to its significance. Integrity is defined by seven aspects as follows.

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

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

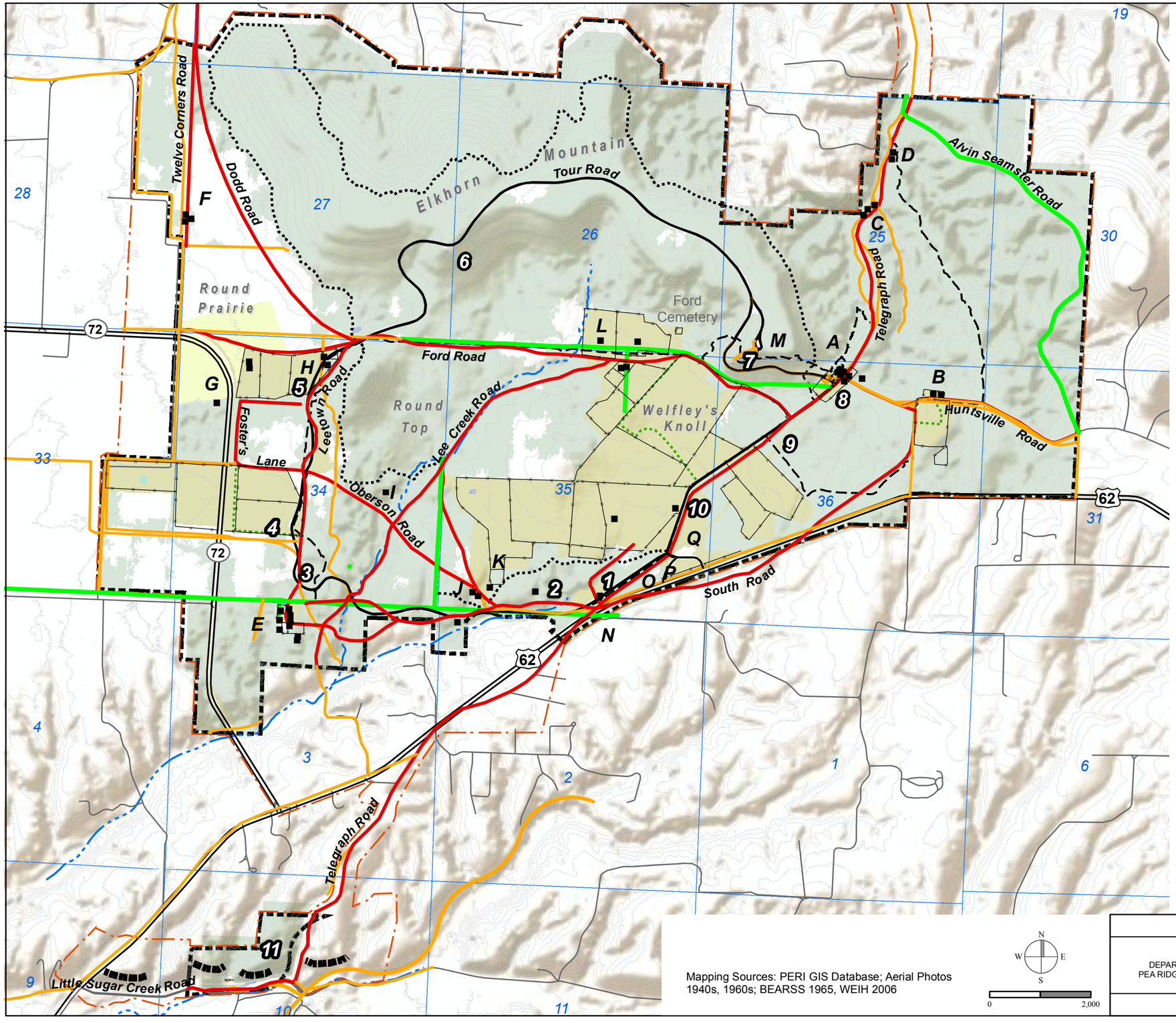
Setting is the physical environment of the cultural landscape.

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

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

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

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



Legend

- Park Boundary
- Study Area Boundary
- Roads/Highways
- Tour Road
- Pre-1860 Road
- 1940s Road/County Road
- Roads Outside Park
- Horse Trail
- MownTrail
- Park Loop Trail
- Fence
- Ford Cemetery
- Topography
- Buildings/Structures (includes foundations)
- Interpretive Stops
- Stream
- Federal Trenches
- Mowed Grassland
- Restored Tallgrass Prairie
- Woodlands
- Marsh
- Water

Buildings/Structures

A	Elkhorn Tavern (building, foundations)
B	Clemen's Structures (foundations)
C	Tanyard (non-extant)
D	Unidentified Structures (non-extant)
E	Leetown Hamlet (non-extant)
F	Amos J. Patterson Structure (non-extant)
G	Wiley Foster Structure (non-extant)
H	Sturdy Cabin (non-extant)
I	Log Cabin
J	Winton Springs House (foundation)
K	J. Ruddick Structures (non-extant)
L	G.W. Ford Structures (non-extant)
M	East Overlook
N	Pratt's Store (non-extant)
O	NPS Maintenance
P	NPS Administrative
Q	Visitor Center

Mapping Sources: PERI GIS Database; Aerial Photos 1940s, 1960s; BEARSS 1965, WEIH 2006

N W E S

0 2,000

Figure 3-1.

PERI 409 125965

AUGUST, 2014	TITLE OF PROJECT CULTURAL LANDSCAPE REPORT AND ENVIRONMENTAL ASSESSMENT
UNITED STATES DEPARTMENT OF THE INTERIOR PEA RIDGE NATIONAL MILITARY PARK	TITLE OF DRAWING **EXISTING CONDITION PLAN** NAME OF PARK PEA RIDGE NATIONAL MILITARY PARK
	REGION: MIDWEST; COUNTY: BENTON; STATE: ARKANSAS

Study Area

This section describes the existing condition of the study area. The landscape characteristics for the study area are: natural systems and features, archeological sites, land use, spatial organization, topography and landform, views and vistas, circulation, buildings and structures, small scale features, vegetation and constructed water features. The Existing Condition Plan (Figure 3-1) illustrates the current condition.

Natural Systems and Features

Existing Condition

The natural systems and features of the Park include mountains and cliffs, streams and drainages, climate and local ecology. The park is situated on the Springfield Plateau within the Ozark Highlands. It is characterized by rolling hills in the park's northern-half that are part of the foothills of the Ozarks. An elevated high plateau comprises the southern (and lower) portion of the park. Elkhorn Mountain is the highest point within the park at 1,610-feet above sea level. Two other landforms, Round Top and Welfley's Knoll are localized high points.

The sandstone and limestone rock that comprises the area and the park was laid down as inland seas that existed more than two million years ago.[3.1] Tectonic activity uplifted the sedimentary layers creating the Ozark Highlands. This uplift and its subsequent erosion and weathering produced the present-day topography.[3.2] The soils within the park vary with the terrain. In general, Tonti soils are found on ridges, terraces and stream terraces; Nixa soils occur on ridge tops; and Noark and Clarksville soils are located on steep hill slopes. Secesh and Elsah soils occur on floodplains.[3.3]

Pea Ridge National Military Park's terrain is crossed by numerous streams and drainages. These include the intermittent streams of Winton Spring Branch, Pratt Creek, Little Sugar Creek, Williams Hollow and Lee Creek. Winton Spring feeds Winton Spring Branch, a drainage that extends through the south end of the park. Little Sugar Creek, just below and parallel to the Federal Trenches, is the only perennial stream. The 100-year flood level of Little Sugar Creek extends into the park facilities (parking, trail and interpretive information) associated with the Federal Trenches.[3.4] All bodies of water originate within the park boundaries with the exception of Little Sugar Creek and Winton Spring.

The regional climate is primarily continental, but has a maritime influence from the Gulf of Mexico. Summers are warm, accompanied by high humidity, and winters are mild, but freezing temperatures occur in mid-winter. Precipitation averages nearly forty-five inches per year. Winters average eight to nine inches of snow per year. Spring is the wet season and May is the wettest month.[3.5]

Animal species within the park and region are typical of northwest Arkansas. Species surveys identified ninety-two bird, forty-six mammal, eighty-six fish, twenty-seven amphibian and fifty reptile species in 2009. Common park wildlife includes white-tailed deer (*Odocoileus virginianus*), coyote (*Canis latrans*), red fox (*Vulpes vulpes*), several small mammals—gray squirrel (*Sciurus carolinensis*), fox squirrel (*Sciurus niger*), and eastern chipmunk (*Tamias striatus*)—as well as numerous migratory songbirds. Scarlet tanagers (*Piranga olivacea*), summer tanagers (*Piranga rubra*), rosebreasted grosbeaks (*Pheucticus ludovicianus*), ovenbirds (*Seiurus aurocapillus*), and various woodland warblers

3.1 Pea Ridge National Military Park, Resources Management Plan, 5.
3.2 Ibid, 6.
3.3 Soil Conservation Service, 1977.
3.4 FEMA; Pea Ridge National Military Park, Resources Management Plan, 6.
3.5 Pea Ridge National Military Park, Resources Management Plan, 4.



Figure 3-2. Several intermittent drainages cross the cultural landscape including Lee Creek (Source: MB 2013).



Figure 3-3. The natural systems of Pea Ridge National Military Park include the landform of the Ozark Plateau, a series of dramatic rocky hillsides contrasting with deep narrow hollows (Source: MB 2012).

(*Phylloscopus* spp.) are among the bird species that visit the park in the spring and summer to nest and breed. The endangered gray bat (*Myotis grisescens*) is the only federally listed animal species that has been observed within the boundaries of Pea Ridge, though there are no resident populations within the park.[3.6]

Pea Ridge National Military Park contains diverse ecosystems and habitats that support a variety of plant species including several rare plants such as field pussytoes (*Antennaria neglecta*), lobed spleenwort (*Asplenium pinnatifidum*), and Ozark chinquapin (*Castanea pumila ozarkensis*). Invasive non-native plant species include *Sericea lespedeza* and Japanese honeysuckle, which are a threat to native habitats due to their ability to colonize and overrun ecosystems.

Analysis

The natural setting and features of the Pea Ridge region attracted Euro-American settlement and development in the early 1800s. The natural setting influenced the Battle of Pea Ridge in 1862, and remains remarkably similar to the historic condition that existed during the battle. The natural barriers and obstructions, such as the rolling hills and drainages that the armies had to negotiate during the two-day battle, remain very similar to their 1862 condition. The natural systems and features of the Ozark Highlands, Elkhorn Mountain, woodland forests, Little Sugar Creek, Williams Hollow, Winton Spring and Lee Creek contribute to the historic character of the Pea Ridge cultural landscape.

The greatest change to the natural systems and features of Pea Ridge are those associated with the natural flora and the streams and drainages. The forests of the Ozark Highlands are denser and have less diversity than those that existed in 1862, due to fire suppression.

Streams and drainages remain in relatively the same location as those that existed in 1862, however development surrounding the park has influenced water flows and channel configurations.

Local fauna in 1862, were likely very similar to those species that exist today. White-tail deer are prevalent within the park, and may pose a threat to natural resources.

Study Area – Contributing Natural Systems and Features

Natural systems and features that contribute to the historic character of the landscape:

- Ozark Highlands
- Woodland Forests
- Little Sugar Creek
- Lee Creek
- South Branch Winton Spring
- Elkhorn Mountain
- Williams Hollow
- Cross Timber Hollow

3.6 NPS, State of the Parks, June 2009, 50.



Figure 3-4. Wilson's excavations at Leetown in 1965 (Source: PERI).

Archeological Sites

Existing Condition and Analysis

Pea Ridge National Military Park is located within the archeologically rich Ozark Plateau. Archaeological sites in the region date human use and occupation to more than 10,000 years ago. Some of the park's archeological sites pre-date European contact including three recorded prehistoric sites. American Indian use and settlement continued in the Pea Ridge area through the early 19th century.

Numerous archeological investigations have been undertaken within the park since its establishment as a national park in 1956. Most have focused on uncovering physical evidence of the Battle of Pea Ridge to enhance interpretation and understanding. Evidence of the battle has been found to be abundant in the Elkhorn Tavern area and around Clemens' Field. Patterned deposition of small arms and larger ordnance is particularly abundant. Broken bits of firearms, accoutrements, and camp and personal items are also present.[3.7]

Field investigations began as early as the 1950s and again in 1965, with work undertaken by Edward Bearss and archeologist Rex Wilson. Investigations have continued through present-day. Archeological studies have included testing for cultural artifacts and investigation of areas that have the potential to reveal additional information about the history and prehistory of the park. Investigations have been conducted for areas where new facilities were installed.

Research historian Edwin C. Bearss completed a study of Pea Ridge National Military Park and its relationship to the Civil War in 1964. This study served as a basis for future archeological investigations. In addition to archeological information, Bearss' report included recollections of local residents of Leetown Hamlet and the tanyard.[3.8]

In 1965, NPS archeologist Rex Wilson conducted the first formal archeological investigations within the park, focusing on identifying Leetown Hamlet in the fields south of where the Confederate and Union troops engaged on March 7, 1862. Wilson focused on locating extant remains of buildings or other features within the former village. Excavations consisted of a number of parallel trenches that explored the assumed location of the Masonic Lodge building. The investigations did not locate remains of structures, but did indicate evidence for buildings. The second part of Wilson's investigation focused on Leetown Cemetery in which he found evidence of seventeen graves.[3.9] Thirteen had depressions that Wilson attributed to bodies being removed for reburial (i.e., soldier graves) and two may have been burial sites for children. One of the undisturbed grave sites may be a freedman named Ike. Wilson's excavations at Elkhorn Tavern yielded post-Civil War materials but no mass burial trench. At the tanyard, Wilson identified three clay-lined vats.

In 1987, Roger Coleman conducted an archeological inventory of the proposed paved trail between Elkhorn Tavern and the two Civil War monuments. Artifacts associated with Elkhorn Tavern and two prehistoric sites were discovered and documented.

In 1993, James P. Harcourt of the Arkansas Archeological Survey completed a Phase 1 cultural resource survey in an area designated for a proposed equipment shed near the visitor center. A sparse lithic scatter was discovered but there was no evidence of 19th or 20th century occupations.

A prehistoric site survey was completed around 1999, by Dr. Marvin Kay and Jason Herrmann from the University of Arkansas.

3.7 GMP/EIS, 67.
3.8 Wilson, 1965.
3.9 Ibid.

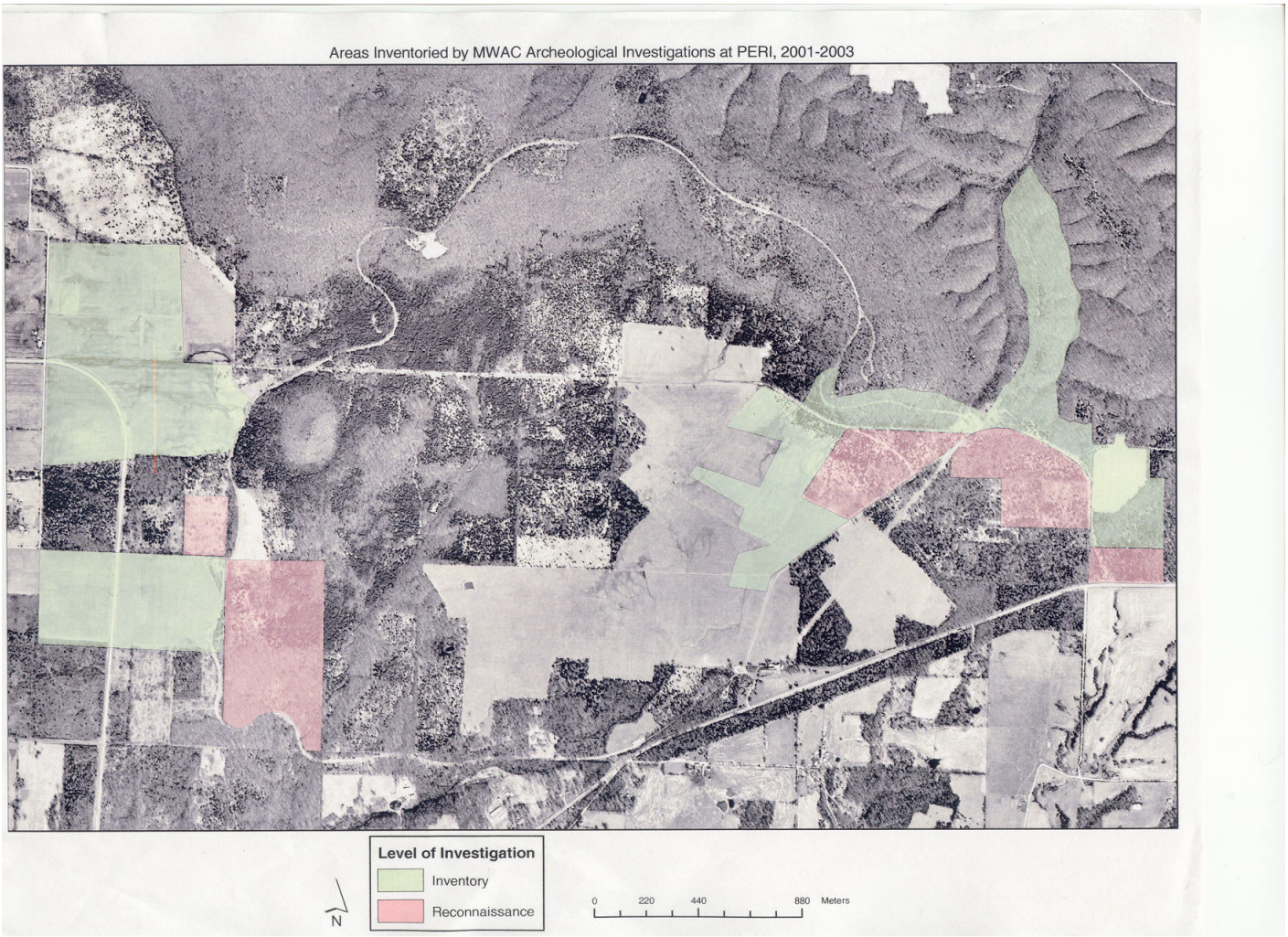


Figure 3-5. The NPS Midwest Archeological Center (NPS-MWAC) conducted surveys at Pea Ridge from 2001 to 2003 (Source: PERI).

They recorded three prehistoric sites that appeared to be temporary occupation sites, related to Early to Late Archaic and Woodland to Mississippian occupations. Two of the three prehistoric sites appeared to be highly disturbed and were determined to be non-eligible to the NRHP.

Beginning in 2000, a five-year Systemwide Archeological Inventory Program (SAIP) was undertaken by the NPS Midwest Archeological Center (NPS-MWAC) and the University of Arkansas' Department of Anthropology that yielded abundant evidence of prehistoric and historic occupation of the site.[3.10] The prehistoric inventory was conducted under the direction of Dr. Marvin Kay of the University of Arkansas, and a Civil War battlefield inventory was completed under the direction of Dr. Douglas Scott of the NPS Midwest Archaeological Center. Between 2001 and 2004, Dr. Kay's inventory combined traditional techniques, a review of archival records, geographic information system (GIS) sampling and predictive modeling. Dr. Scott's archeological surveys focused on the distributions of artillery and other munitions left from the battles fought at Pea Ridge. The investigations involved metal detector surveys over the battle areas and skirmish lines to test the historic accounts of troop positions.

A park-wide archeological inventory was initiated in 2000, that recommended identifying, recording and evaluating each NRHP site found. A prehistoric archeological inventory and a non-Civil War-related site inventory was included as a separate research framework.

In late March of 2003, William Volf directed an electric resistance survey of an 80 x 20 meter area of Leetown in an attempt to re-locate some of the structures. Two possible building footprints were identified from the results but were not conclusive.[3.11]

In 2004, investigations at Leetown Hamlet included geophysical and aerial remote sensing to identify the general extents of the village and to verify locations of buildings that may have been part of the settlement at the time of the battle. The survey located the footprint of the Lee/Mayfield house, two possible locations of the road central to the layout of Leetown Hamlet, a rectilinear pattern of ditches and depressions, and six unidentified rectangular features—three of which may be building footprints from structures that were depicted in various historic maps of the town.[3.12]

In 2013, a geophysical archeological inventory and evaluation of four proposed alternatives for the U.S. Highway 62 re-alignment project within Pea Ridge National Military Park was undertaken by staff archeologists and NPS-MWAC archeological technicians. Support was provided from volunteers under the Volunteer-In-Park (VIP) program, University of Nebraska-Lincoln faculty appointee, and the PERI staff in Spring 2013.

3.10 GMP/EIS, 67.

3.11 Herrmann, 7-8.
3.12 Herrmann, 63.



Figure 3-6. The primary land use is the setting of the Battle of Pea Ridge that includes fields, woodlands, and former homesteads and hamlets (Source: MB 2013).



Figure 3-7. Land uses associated with the national park include visitor facilities—visitor center, tour road, interpretive elements, museum functions and picnic areas (Source: MB 2013).

Land Use

Existing Condition

The land use of the park is a national park with a mission to interpret the Battle of Pea Ridge. The primary land use is the setting of the Battle of Pea Ridge that includes agricultural fields, homesteads, hamlets, and woodlands associated with the battle. Two cemeteries exist within the park boundaries, Leetown Cemetery and Ford Cemetery. Leetown Cemetery is described and evaluated as part of the Leetown Hamlet landscape character area. Ford Cemetery is included in this section.

Other land uses are those associated with the national park. Visitor facilities include the visitor center, Tour Road, interpretive elements, museum functions and picnic areas. Administrative and maintenance uses are present as well. Recreational use includes hiking, equestrian related activities, and biking. The heaviest visitation occurs in June, July and August with a substantial number of visitors during October to view the fall colors.[3.13] Visitors arrive by private automobile with a few exploring the park via horseback or bicycle.

Land use adjacent to the park is primarily agricultural, generally small privately-owned farms. Grain crops and livestock production are principal uses. The recent population growth in Benton County has resulted in residential and commercial developments being built adjacent to the park.[3.14]

Land use includes the Ford Cemetery, located next to Ford's Farm. The cemetery predates the establishment of the national park. The cemetery is open to visitors and accessible by a mown path. Ford Cemetery is located at the base of Elkhorn Mountain between the hillside and Ford Road, just to the east of the Ford fields. It is a gently sloping space covered with mown grass, enclosed by a worm fence. At the time of field investigations in 2013, a few large trees were within the cemetery—three cedars, a large catalpa tree, and a dead oak tree. The dead tree and a few of the others have since been removed. Grave markers vary in size but most are tablet style. A few are slant markers of either marble or stone. The earliest legible markers notes a grave date from 1879. The majority of the markers were added in the early 20th century; the most recent is 2004. Family members have maintained rights to inter family members within Ford Cemetery until the last known family member is buried. Ford Cemetery is in fair condition. A few tombstones need to be reset, and some graves have sunken, and the full extent of the cemetery is unknown. No current management plan exists for the cemetery. Maintenance is minimal.

Analysis

Today, the study area retains the historic look and feeling of the agricultural land uses that were present on-site just prior to the Battle of Pea Ridge. The present-day fields surrounded by woodlands and forests evoke the setting that would have been present at the time of the battle. Although land uses directly associated with the battle (camps, artillery placement etc.) are not present, the setting and feeling remain. The land use contributes to the historic character of the cultural landscape.

Just prior to the 1862 battle, the land use of the area was primarily agriculture consisting of fields, homesteads with dwellings and outbuildings, and small hamlets connected by a primitive road system. Fields of maintained crops, including corn and wheat, created a pattern of open land contrasted by the surrounding woodlands. At Elkhorn Tavern, land uses included a residence and

3.13 Pea Ridge National Military Park, Resources Management Plan, 2.
3.14 SOW; Pea Ridge National Military Park, Resources Management Plan, 3.



Figure 3-8. Even though land use directly associated with the battle (camps, artillery placement etc.) are not present, the setting and feeling remain (Source: MB 2013).



Figure 3-9. Ford Cemetery (Source: MB 2013).

accommodations for travelers. Other land uses in the study area included the tanyard, a blacksmith, Masonic Lodge, general store, mill, and the Leetown Cemetery.

Before, during and just after the Battle of Pea Ridge, the land use was a battlefield. Specific areas were devoted to camps, headquarters, commissaries, hospitals and stables, and artillery emplacements and areas where the troops engaged on March 7th and 8th, 1862. After the battle these land uses disappeared, leaving few traces of battle-related activities.

Following the Civil War, and until 1956, the land use returned to agriculture use with some areas developed for residential use. These included the addition of buildings, structures and features most of which are non-extant.

Ford Cemetery remains in its original location, setting and form. The cemetery retains the historic look and feel of the agrarian landscape and complements the agricultural fields and farmsteads that would have been present at the time of battle. The cemetery fits in and appears to be part of the historic landscape. Its placement at the base of Elkhorn Mountain and woodland, with a view to the agricultural fields below, evokes a feeling of tranquility and peace at the edge of the historic battleground. It is unknown when the cemetery was established; the earliest legible recorded grave in the cemetery dates from 1879, but other grave markers may be earlier. The cemetery may include family members who were present during the battle.

Further research is needed to determine whether or not Ford Cemetery is contributing to the Battle of Pea Ridge. This research should include review of local cemetery records and county records, and a review of known community members between 1862 and 1865. The SHPO has determined the cemetery to be non-contributing due to lack of information and has requested further documentation.

Study Area
Contributing Land Use

The aspects of land use that contribute to the historic character of the cultural landscape are:

- Location, Setting and Feeling
- Agricultural fields and pastures
- Ford Cemetery (may be contributing)



Figure 3-10. Elkhorn Mountain defines the north edge of the park. The park's spatial organization is composed of a pattern of open fields contrasted by dense deciduous forests (Source: MB 2013).

Spatial Organization

Existing Condition

The spatial organization of the park consists of open fields surrounded by woodlands and forests interrupted by streams and hollows that create depressions in the high Ozark plateau. Vegetation, topography, fence lines and non-historic fences, Telegraph, Huntsville and Ford roads are the primary features that create the spatial organization.

At Elkhorn Tavern, the building and orchard assist in creating the spatial organization of this area. Elkhorn Mountain generally defines the northern edge of the cultural landscape with Telegraph Road generally defining the extents to the south. A secondary spatial experience is presented to the visitor as they travel along the Tour Road that loops through the cultural landscape.

At the Federal Trenches, topography, vegetation and Little Sugar Creek are the primary features that create the spatial organization. A secondary spatial experience is presented to the visitor from the parking area and along the trail to the top of the hillside where the extant trenches are located.

Analysis

The original spaces of the battlefield landscape remain similar to those that existed during the battle and the period of significance. This due in large part to the natural and man-made topography remaining very similar to that which existed in 1862. Elkhorn Mountain spatially defines the north edge of the park as it did when it was a barrier during the battle.

Main roads such as Telegraph, Huntsville and Ford remain relatively intact to their 1862 alignments. Fields and fence lines have been arranged to reflect the patterns and character of the battlefield setting, in an approximations of the historic spatial patterns. The introduction of non-historic fences along historic fence lines is based on research and maps prepared by Bearss in the 1960s. Fences have been built along historic fence lines to indicate the extent of former fields where the majority of the battle was fought.

The greatest changes to the historic spatial organization include the addition of the Tour Road and tour stops, changes in the woodlands and forests, and the loss of original buildings, structures and small farm spaces. The Tour Road disrupts the historic spatial organization as it is a new feature that follows an alignment that did not exist historically. In addition, some portions of the road disrupt historically open fields and battle-related landscapes.

Some areas of woodlands and forest are now denser than they were historically. Small areas now encroach into historically open fields. Some areas that were historically forested are now open fields. Most buildings, structures and small farm spaces that existed in 1862, are no longer extant.

Even though some features that define the historic spatial organization are missing (i.e., buildings, structures and small farm spaces) and others are similar, those that remain generally reflect the patterns and character of the historic setting. In general, the spatial organization contributes to the historic character of the cultural landscape.

Study Area
Contributing Spatial Organization

The aspects of spatial organization that contribute to the historic character are:

- The pattern of open fields vs. closed woodlands
- Elkhorn Mountain and Williams Hollow
- Fences that define fields within areas of the battlefield

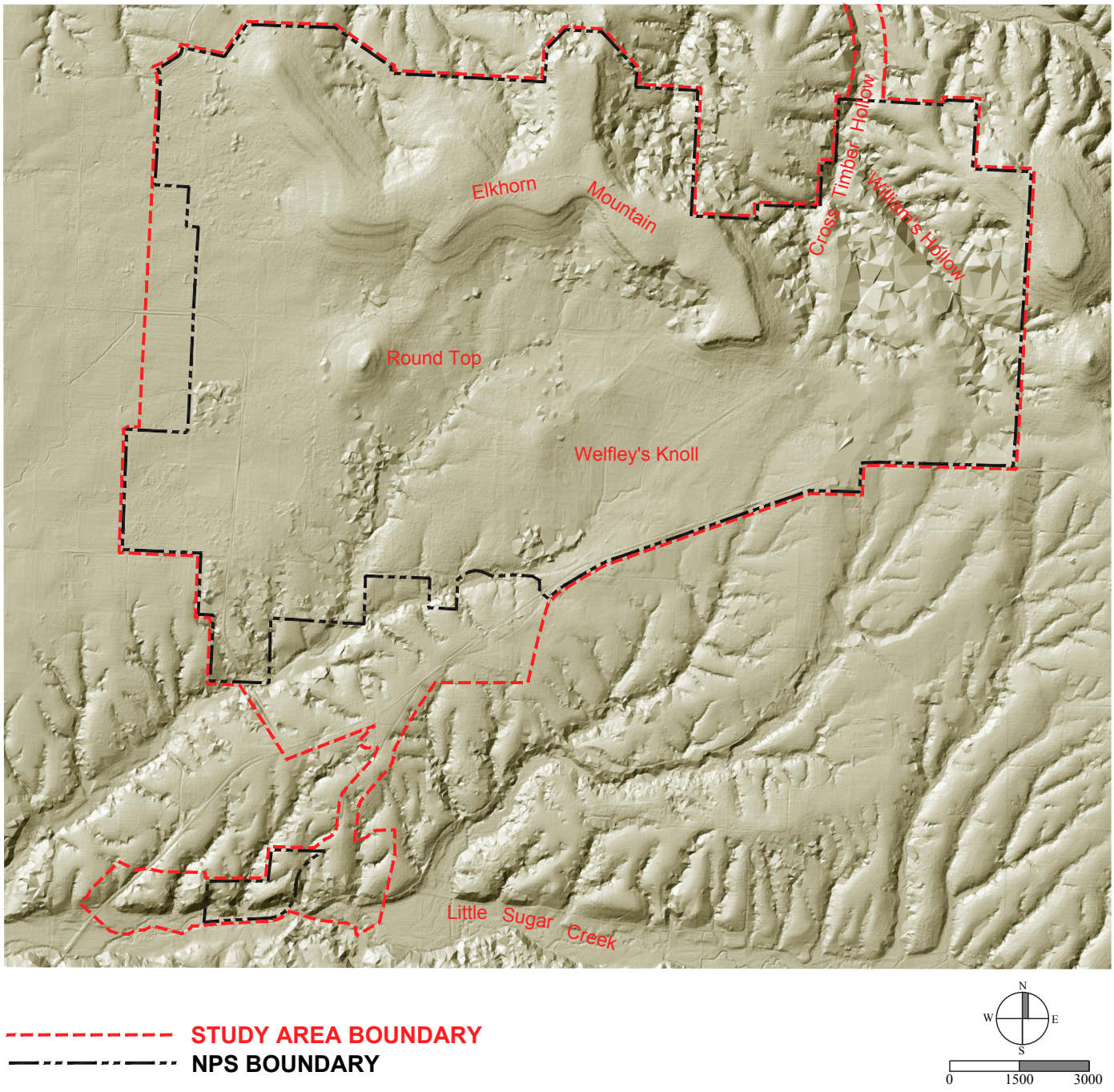


Figure 3-11. The rolling topography is contrasted by hollows that create depressions in the high plateau. Elkhorn Mountain, Round Top and Welfley's Knoll are prominent high points within the landscape (Source: MB 2013).

Topography and Landform

Existing Condition

The topography and landform of the park consists of the Ozark Plateau with high mountains that gently descend to rolling topography. The rolling topography is contrasted by hollows that create depressions in the high plateau.

Elkhorn Mountain, Round Top, and Welfley's Knoll, are the prominent high points within the landscape. Elkhorn Mountain is the largest mountain in the park and generally defines the northern edge of the cultural landscape. Round Top rises noticeably above the adjacent rolling farmland, to the east of Foster's Farm.

The high points are contrasted with Williams Hollow and the Little Sugar Creek Valley, which are the primary features that create the hollows and valleys, but are complemented by several small drainages, such as Lee Creek and Winton Springs Branch, which have created slight depressions in the topography.

The majority of the agricultural fields, such as Oberson's, Pratt's, and Cox's Fields, are relatively level to rolling plateau. At Elkhorn Tavern, Elkhorn Mountain, Williams Hollow, Broad and Narrow Ridges are features that define the topography in this area.

At the Federal Trenches, the valley of Little Sugar Creek and the bluffs above the creek are the prominent landforms, where the constructed Sugar Creek Trenches occur.

Analysis

The original landform and topography of the battlefield landscape remains similar to the time of the battle and the period of significance. The mountains, hollows and valleys remain similar to their 1862 orientation. The level to rolling fields reflect the historic character of the battlefield setting. The greatest changes to the topography have occurred due to the construction of the Tour Road, which was built across open battlefields and in some cases was raised above the grade level of the adjacent fields and small drainages. The Tour Road also altered the contour of Elkhorn Mountain, where it descends from the east overlook towards Elkhorn Tavern.

Other changes to the topography and landform include the erosion and filling of the Federal Trenches on the bluffs above Little Sugar Creek. Erosion has modified the mountains and hollows through natural processes. Agricultural practices may have caused some erosion of the topography of the fields, but these changes have in all likelihood been minor.

Although there have been some alterations to the topography and landform since the period of significance, the existing topography reflects the character and feeling of the historic setting and contributes to the cultural landscape.

Study Area Contributing Topography and Landform

The aspects of topography and landform that contribute to the historic character are:

- High mountains that descend to rolling topography and deep hollows.
- Elkhorn Mountain
- Round Top
- Welfley's Knoll
- Williams Hollow
- Cross Timber Hollow
- Plateau of agricultural fields



Figure 3-12. The view from Elkhorn Mountain from the east overlook (Source: MB 2013).



Figure 3-13. The view towards Elkhorn Mountain from the Tour Road (Source: MB 2013).

Views and Vistas

Existing Condition

The park infrastructure, comprised of the visitor center and Tour Road with interpretive stops and two overlooks, orchestrates a series of views that provide the visitor with a visual understanding of the Battle of Pea Ridge.

This experience begins at the visitor center with an expansive view across agricultural fields to the north with the backdrop of Elkhorn Mountain. From the Tour Road, views on the park's west side include those from tour stop 4 at Leetown Battlefield and from tour stop 5 towards the fields where the armies collided on March 7th. These views also occur along the Tour Road as it travels northward. The view traveling north along the Tour Road from Leetown Hamlet resembles the advance of Union troops on March 7th. Today the vegetation in the fields differs from what existed at the time of the battle, and the forest vegetation is more dense than what would have been present during the battle.

On Elkhorn Mountain, the view from the east overlook affords an expansive overview of the high ground of the battlefield including Welfley's Knoll, Ford's fields and Round Top. On the east, views from the Tour Road include those towards Elkhorn Tavern—interrupted by the parking area, and views from stop 9 at Ruddick's Field, and from stop 10 across the fields to the northwest. All of the views from interpretive stops are focused towards areas associated with the battle in locations easily reached by the Tour Road. The views are predominantly across agricultural fields were the battle was fought. Some are towards the woodlands where troops advanced such as at Leetown Battlefield. These views assist in emphasizing that a clear field of fire was required for the artillery used during the battle.

Analysis

The existing views from the visitor center and Tour Road assist in interpreting the story of the battle as they bring visitors in close proximity to key battlefield sites. While they present the various areas where battle occurred, the existing views do not always present the view from the perspective of the military advance. This is primarily a function of the route of the Tour Road, which rarely follows a historic route taken by Confederate or Union troops.

The one-way direction of the Tour Road diminishes the integrity of views that would have occurred historically along Telegraph Road as troops traveled towards Elkhorn Mountain and Elkhorn Tavern. A view from the south would provide context for the setting of the battle, which primarily took place in the fields below Elkhorn Mountain. The route and associated view illustrates how the topography shaped the course and outcome of the battle. Unfortunately, visitors do not experience this view since the one-way direction of Tour Road focuses the view towards the west.

The battlefield is best viewed from the perspective of the Civil War soldier on foot. Military staff rides are conducted in the fields where visitors walk the route.

In some locations, such as at tour stop 5 and at the visitor center, the Tour Road and/or interpretive stop traverse a historic battlefield. While this affords a 360-degree view and immersion within the battlefield, the presence of the parking area and road diminishes the integrity of the battlefield.

The visitor center is somewhat visible from the east overlook. At certain times of day, the east overlook is visible from the Tour Road and visitor center. This is primarily due to the color of the building against the backdrop of cedars.



Figure 3-14. The view from Welfley's Knoll (Source: MB 2013).



Figure 3-15. The view across Leetown Battlefield to the northeast toward the area where General McCullough was killed (Source: MB 2013).

As a pedestrian or bicyclist, more views associated with the battle are apparent but are not interpreted. These include those along Ford Road from Huntsville Road towards Elkhorn Tavern, along mown paths within various fields, and along Telegraph Road north of Elkhorn Tavern.

Certain views that were important to the outcome of the battle are not a part of the visitor experience. These include views from the top of Welfley's Knoll that provided a lookout over the battlefield at Cox and Ruddick's fields. Welfley's Knoll was a spot of great tactical importance during the Battle of Pea Ridge. From this viewpoint, the Union army could overlook most of the battlefield and watch the movement of the Confederate position. The Union army deployed their forces from this ridge and were able to send enfilading artillery fire into the Confederate positions.

Another important view for the interpretation of the battle is towards the bluffs above Elkhorn Tavern, near the existing east overlook. These bluffs would have been very visible at the time of the battle. Overgrown vegetation now obscures the rock outcroppings where Confederate troops scrambled on the morning of March 8, 1862. Being able to view these bluffs is an important aspect of understanding the battle.

Views assist in interpreting the story of the Pea Ridge battle and assist in conveying an authentic scene. While many of the existing views assist in conveying the historic setting, others diminish the integrity of contributing features. Some views that were important to the battle are not presented, and others confuse the historic scene. Views could be improved by presenting more of the historic lines of sight associated with the battle.

Study Area

Contributing Views and Viewsheds

The aspects of views and vistas that contribute to the historic character are:

- View to Elkhorn Mountain from Telegraph Road
- View to and from Elkhorn Tavern from Telegraph Road
- View from Huntsville Road to Elkhorn Tavern
- View from Welfley's Knoll
- View across Leetown Battlefield
- View to Little Sugar Creek Valley from Federal Trenches



Figure 3-16. The Tour Road provides a looped route through the park. The southern end is a two-way road, providing access to the horse trail parking trailhead at Winton Springs (Source: MB 2013).



Figure 3-17. For a portion of its length south of Elkhorn Tavern, the Tour Road follows the historic alignment of Telegraph Road (Source: MB 2013).

Circulation

Existing Condition and Analysis

The existing circulation system of the park consists of vehicular, pedestrian and equestrian routes, and unused road traces. The Existing Circulation diagram and Roads Matrix provide a summary description of historic and extant roads (Figure 3-20 and Table 3-4.). Similar information for trails is provided in the Trails Matrix (Table 3-5.).

Vehicular routes consist of two highways, the Tour Road, maintenance and service drives, and road traces. U.S. Highway 62 provides access to the visitor center from Bentonville, Arkansas. Arkansas Highway 72 of the park bisects the west portion with connections between U.S. Highway 62 and Pea Ridge. The Tour Road is the primary vehicular route within the park, providing access for park visitors to all interpretive spots associated with the battlefield landscape. Other vehicular routes include maintenance and service roads used only by park staff, the Winton Springs road and horse trailer parking area, and many road traces that are no longer open to vehicular traffic. Road traces are those present at the time of the battle in 1862, some of which were built between 1830 and 1840 (1830s roads) when the area was first settled by Euro-Americans. Others were built by 1899, and several were built as county roads in the 1940s.

Pedestrian routes consist of the park loop trail—a seven-mile hiking route, and sidewalks associated with the visitor center, interpretive stops along the Tour Road, east overlook, administrative buildings and maintenance areas. Portions of the park loop trail follow road traces. A nine-mile horse trail extends throughout the park providing equestrian use.

Many historic roads remain. In general, most circulation routes present at the time of the battle in 1862, remain intact today. However, most are now road traces and several have sections where newer routes have covered historic alignments. Most 1830s, roads no longer accommodate vehicular traffic. Some are maintained and used as hiking trails including Leetown Road and Foster's Lane. Others have pedestrian access along mown paths such as those at Telegraph Road at Elkhorn Tavern and along Huntsville Road. Ford Road is part of the park loop trail, providing both pedestrian and bicycle use. Other roads are overgrown and difficult to discern, including portions of Telegraph Road and Leetown Road. Others are not passable due to deadfall such as the northern portion of Telegraph Road.

The addition of contemporary routes—two highways and the Tour Road—have disrupted historic circulation patterns. U.S. Highway 62 created a direct vehicular access into the park, but disrupted the historic alignment of Telegraph Road and South Road. The Tour Road was built over portions of the historic alignment of Telegraph Road, and crosses several other 1830s, roads.

Tour Road

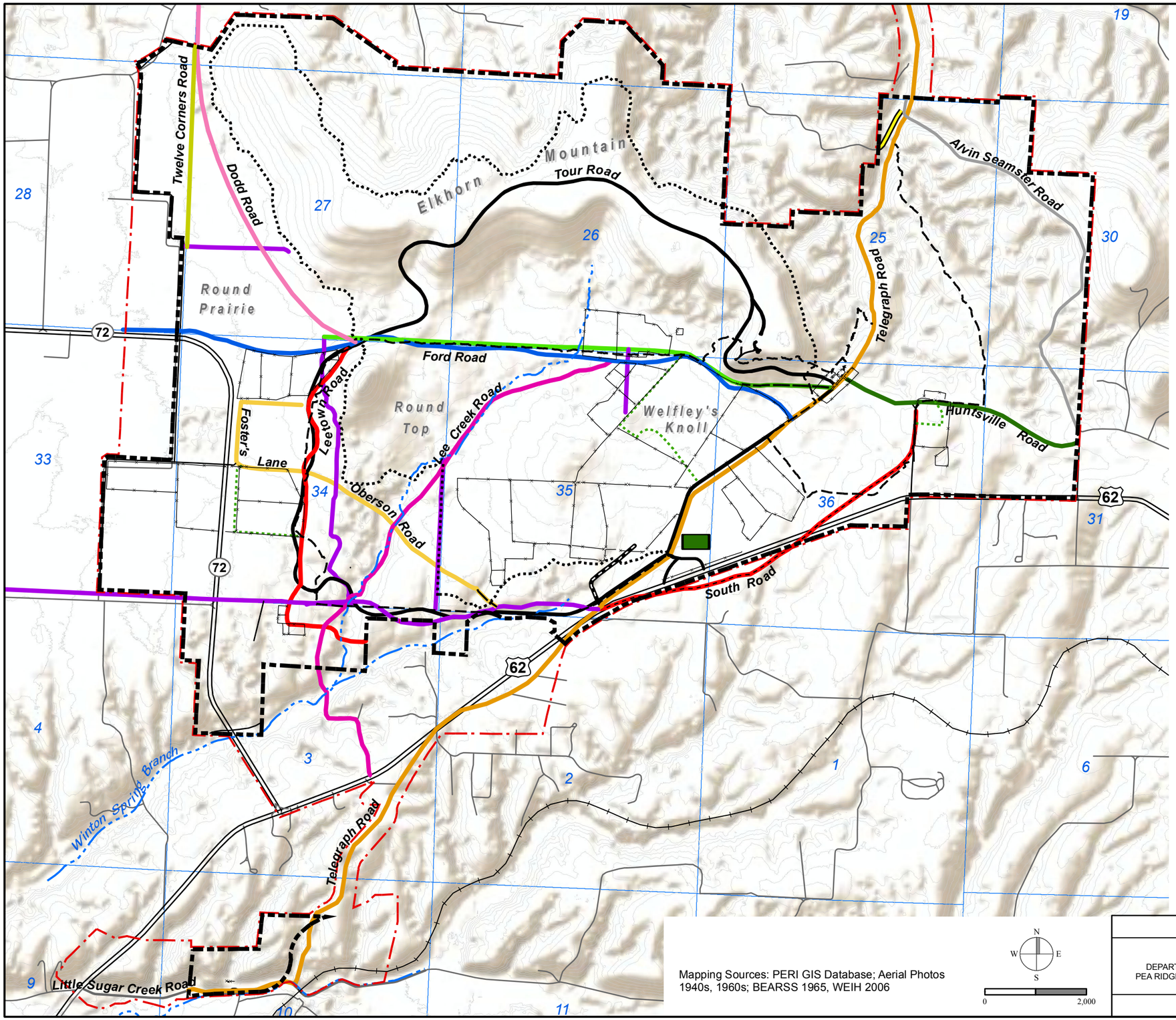
The Tour Road was built in 1963, by the NPS to provide visitor access to, and interpretation of the battlefield landscape. It is an asphalt paved road with a gravel shoulder, seven-miles in length that begins and ends at the visitor center. The Tour Road is the primary vehicular route within the park, designed as a loop to connect to most areas of the park. It is one-way for most of its length. A two-way section extends from the visitor center to the Winton Springs road where horse trailer parking and access to the horse trail is provided. The one-way sections are approximately eighteen-feet wide. The two way sections are approximately twenty-five feet wide.



Figure 3-18. The tour road and parking area at Leetown Battlefield (Source: MB 2013).



Figure 3-19. The tour road includes ten stops. Each stop includes a parking area and interpretation. Stop 4, at Leetown Battlefield, is in an open clearing. This stop is located within the historic battlefield (Source: MB 2013).



Legend

- Park Boundary
- Study Area Boundary
- NPS Visitor Center/Facilities
- Tour Road
- Private Access
- Ford Road
- 1940s Roads/County Roads
- Foster's Lane
- Oberson Road
- Old Highway 72
- Lee Creek Road
- Leetown Road
- Twelve Corner's Road
- Dodd Road
- Pratt's Road
- Telegraph Road (Butterfield Overland Route, Trail of Tears, Old Wire Road)
- Huntsville Road
- South Road (Ruddick Road)
- Service Drive
- Winton Spring Road
- Outside Park Roads
- Horse Trail
- Mown Trail
- Park Loop Trail
- Worm Fence
- Topography
- Stream

Figure 3-20.

PERI 409 125965

Mapping Sources: PERI GIS Database; Aerial Photos 1940s, 1960s; BEARSS 1965, WEIH 2006

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AUGUST, 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
PEA RIDGE NATIONAL MILITARY PARK

TITLE OF PROJECT
CULTURAL LANDSCAPE REPORT
AND ENVIRONMENTAL ASSESSMENT
TITLE OF DRAWING
EXISTING CIRCULATION
NAME OF PARK
PEA RIDGE NATIONAL MILITARY PARK

REGION	COUNTY	STATE
MIDWEST	BENTON	ARKANSAS

Table 3-4: Study Area Roads Matrix

Symbol	Asset Code	Road	Section	Date	Length / Width	Material	Condition	Use	Contributing	Non-contributing	LCS #	Notes
	408444	***Tour Road***		1961 to 1963 and 1964, repaired 1992	1.89 miles	asphalt	good	vehicular		x		includes park entrances, visitor center parking, culverts, small bridges, parking areas, 10 stop interpretive, parallels Telegraph Road in places, follows 1940s Telegraph Road - county road
			one-way		18' wide							from maintenance area to Elkhorn Tavern,
			two-way		25' wide							at visitor center, from Elkhorn to visitor center
		Old Highway 72		demolished 1963	2.37 miles	dirt, remnants of asphalt and road base in places	non-extant	closed		x		non-extant east / west route, followed Ford Road in places, followed 1940s county road
		Highway 72		pre-1963	2.15 miles	asphalt, two lanes in both directions with shoulders	good	vehicular		x		north / south route turning west at north, connecting to Hwy 62 on south
		U.S. Highway 62		pre-1963	2.96 miles	asphalt, two lanes in both directions with shoulders	good	vehicular		x		will be removed from park in 2014, portions follow 1940s county road
	408545	***Ford Road***		pre-1830	8' feet wide +/- by 2.61 miles	two-rut road trace, rocky and steep in places	poor to good	trail	x		12503, HB-08	some erosion, steep slopes, unclear alignment in sections, was the route of Union troops advance from Leetown to Elkhorn Tavern
		Foster's Lane		pre-1830	6 to 8' feet wide +/- by .5 miles	dirt	poor to good	trail	x			wells and foundations, serves as trail
		Oberson Road	from Foster's Lane to south road	pre-1830	6 to 8' feet wide +/- by .88 miles	dirt, road trace, rutted	poor to good	closed	x			road does not have an official name, name is from 1963 master plan, crosses branch of Winton Springs, on Weih's map
	413102	***Winton Springs Road***	north / south, Lee Creek to tour road	pre-1830	6 to 8' feet wide +/- by .38 miles	dirt	poor to good	trail or closed??	x			road does not have an official name, noted on 1963 master plan, on Weih's map
			from tour road to Winton Springs House site	unknown	18' wide by .07 miles	asphalt, gravel	good	vehicular		x		bridge, stone wall, gravel parking area
			from horse parking area to Lee Creek	unknown		unknown	unknown	unknown	x			on 1963 master plan
		Leetown Road										
			north / south from Tour Road to Ford Road	pre-1830	6' wide by 1.05 miles	earthen surface, two track, rutted in places	fair to good	trail	x			
			north / south through Leetown Hamlet	pre-1830	location unknown	covered by vegetation	unknown		x			
			east from Leetown Hamlet	pre-1830	10' wide by .3 miles	earthen surface, two-rut trace, embankments, lined with vegetation	poor to good	trail, closed	x			
		Lee Creek Road	follows Lee Creek from Leetown Hamlet to Ford Road known as Leetown Road in 1963 master plan	pre-1830	unknown	asphalt, gravel	good	vehicular	x			on Weihs map, known as Leetown Road in 1963 master plan
		Old Leetown Road / Co Road	west along Mayfield fields; extends from Hwy 72 east to Hwy 62	pre-1830	15' feet wide +/- by 1.40 miles	dirt	poor to good	trail from Leetown Hamlet east to U.S. Hwy 62	x			included on Weihs map as a 1940s county road, proposed to be obliterated in 1963 master plan
		County Roads		1940s								
			1 - west PL to Visitor Center	1940s	15' +/- by 1.58 miles	dirt, hardened gravel		closed		x		road does not have an official name
			2 - north / south, parallels Leetown Road	1940s	1.08 miles	unknown		closed		x		road does not have an official name
			tour road to Winton Springs	1940s	.52 miles	unknown		closed		x		road does not have an official name
			3 - Mayfield Drive 4 - short south spur off Ford Road	1940s	.24 miles	unknown		closed		x		road does not have an official name
			5 - east / west at Ford Road (service road)	1940s	.55 miles	unknown		trail		x		road does not have an official name, often confused with Ford Road
		Pratt's Road	near interp stop	pre-1830	.31 miles	unknown			x			if extant, location not confirmed in field
	409068	***Telegraph Road***	from Federal Trenches through Tanyard	pre-1830		dirt, vegetated, areas not reviewed		portions are trails	x		12508, HB-21	Tour Road follows orig alignment at Elkhorn Tavern
		Butterfield Overland Stage	entire length	1830s	5.12 miles				x			
		Trail of Tears	entire length	1838 to 1839					x			
		Williams Hollow	north PL to Elkhorn	pre-1830		narrow, rocky two-rut road trace			x			
		Tour Road	Elkhorn Tavern to Ford Road	rebuilt 1963		asphalt	good	vehicular	x			
		Road Trace	west of Ford Road			grass / vegetation covered road trace			x			
			along Little Sugar Creek	pre-1830		asphalt			x			
	409073	***Huntsville Road***	Elkhorn to south PL	pre-1830	8' +/- by .95 miles	mown grass covered trace with road bed visible	good	trail	x		12500, HB-01	determined to be eligible by SHPO (per LCS), Huntsville Road is the route of the Confederate retreat from Pea Ridge on March 8, 1862
		South Road	from Leetown to Clemens	pre-1830		unknown		closed, portion of trail??	x			portions are outside park, on Weih's map
			'No Name Road 3' Leetown Road to Visitor Center	pre-1830	6 to 8' feet wide +/- by 1.13 miles	dirt, hardened gravel, tree-lined in places	poor to good	closed	x			road does not have an official name, on Weih's map
			Visitor Center / Pratt's Store to Hwy 62	pre-1830		unknown		outside park				outside of the park, on Weih's map
			Ruddick's Road Hwy 62 to Huntsville Road	pre-1830	1.55 miles	unknown			x			road does not have an official name, on Weih's map, known as Ruddick's Road on 1963 master plan
		Alvin Seamster Road	Telegraph Road to Huntsville Road	pre-1830		unknown		closed	x			field investigations did not review road, known as County By-Pass Route in 1963 master plan
		Little Sugar Road	Old Wire Road at Federal Trenches	alignment pre-1830		unknown		vehicular	x			County Road
		Dodd Road	west property line	pre-1830		hardened gravel surface		closed within the park	x			part of Van Dorn's route from Bentonville Detour
		Twelve Corners Road	Ford Road to Bentonville Detour	pre-1830		gravel surface		closed	x			part of Van Dorn's route from Bentonville Detour

Table 3-5: Study Area Trails Matrix

Symbol	Asset Code	Trail	Section	Date	Length / Width	Material	Condition	Use	Contributing	Non-contributing	Notes
	1253022	***Horse Trail***			9 miles						
			north of Ford Road		5.16 miles	dirt	fair to poor	equestrian, hiking		X	follows ridges and valleys, is not on historic roads
			north of Ford Road		xx miles	dirt	fair to poor	equestrian, hiking		X	follows ridges and valleys, is not on historic roads
			follows Old Hwy 72		.03 miles	dirt	fair to poor	equestrian, hiking		X	labeled Ford Road on Park Map
			Ford Road to Horse trailhead		1.55 miles	dirt	fair to poor	equestrian, hiking		X	along base of Round Top, crosses Winton Springs, follows Ruddicks fenceline
			Horse trailhead to visitor center		.89 miles	dirt	fair to poor	equestrian, hiking		X	south edge of fields, does not follow fields
			Telegraph Road - visitor center to Ford Road		.98 miles	dirt	fair to poor	equestrian, hiking		X	north side of Tour Road
		Broad Ridge Trail	tanyard to Huntsville Road		1.07 miles	dirt	fair to poor	hiking		X	follows ridge line
		Park Loop Trail			7 miles						
			Ford Road to Clemens Field		.71 miles	dirt	good	hiking		X	goes up to East Overlook, onto Elkhorn Tavern, along Huntsville Road to Clemens
	1253023		Elkhorn Tavern to Williams Hollow hospital site along Telegraph Road		1.09 miles	dirt	poor to good	hiking	X		connects to Broad Ridge trail
			Clemens to Tour Road		.9 miles	dirt	good	hiking		X	from Clemens, along fields, parallels South Road at times
	1028653		Telegraph Road	pre-1830	.22 miles	dirt	good	hiking	X		south side of Tour Road, follows Telegraph Road orig alignment
			Telegraph Road to Leetown Road (Co road 1)	1940s	15' +/- by 1.22 miles	dirt	good	hiking		X	
			north south, parallels Leetown Road	1940s	1.22 miles	unknown				X	
			Leetown Road	1940s	1.40 miles	dirt	good	poor to good		X	
			around fields / woods (Obersons)		.62 miles	unknown	mown???	hiking		X	

The Tour Road includes culverts, small bridges, parking areas, and pedestrian crossings. From the visitor center, it extends westward along a one-way route with opportunities to stop at ten locations.

Each of the ten interpretive stops convey an important aspect of the park's history or the role of the specific location in the battle. Each stop includes a parking area with spaces for recreational vehicles or buses and passenger cars. The size of each varies, depending on the role of the location in the interpretive story. Each parking area is located either just off Tour Road or is immediately adjacent.

- Tour stop 1 (HQ Picnic Area Parking Rt 904) is a parking area of eight spaces with two RV/bus spaces, located immediately north of the Tour Road. It includes a picnic area, interpretive sign and a narrow path that extends north. To the north, and parallel to the parking area, is the original route of Telegraph Road that was also the route of the Trail of Tears. This route is now a rutted road trace that extends east / west. This tour stop interprets the Trail of Tears, Butterfield Overland Stage and Telegraph Road that was used by both armies during the battle.

- Tour stop 2 (EH Curtis Headquarters) is located north of the Tour Road in a cleared area. It interprets the location of the Union commander General Samuel Curtis' headquarters. This is one of the larger tour stops with ten spaces and two RV/bus spaces, a sandstone wall that surrounds the west edge, and an interpretive sign. Just northwest of the parking area is a remnant foundation built by NPS personnel from HPTC and park staff as an interpretive element.

- The third tour stop (LB Leetown Hamlet) is on the south side of the Tour Road, just before it turns to the north. This stop consists of a small parking area of four spaces, an interpretive sign and a path leading to the south. After a few feet, the path connects to the alignment of Old Leetown Road, originally built in the 1830s and improved as a county road in the 1940s. This stop interprets Leetown Hamlet that served as a Union field hospital.

- Leetown Battlefield is the fourth stop. Both the Tour Road and parking area are within the battlefield where, on March 7th, the Confederate attack through the woods failed to defeat the Union army deployed along Oberson's south fence line. This is the location where two Confederate generals, Ben McCullock and James McIntosh, were killed. The parking area consists of twelve spaces and two RV/bus spaces, interpretive signs, artillery that depicts the battle, and mown paths into the field to access the artillery pieces.

- Tour stop 5 is where the two armies collided. It is in an open clearing on the edge of the forest. This stop does not have parking, but has a pull-off for two cars and an interpretive sign. There are mown paths that lead to the artillery pieces in the fields.

- The west overlook is the sixth tour stop, and is located on the plateau of Elkhorn Mountain. This stop consists of a large parking area with spaces for fifteen cars and two RV/buses. A large terrace, enclosed on the south by sandstone stacked walls, is the primary element of the overlook. In the center of the terrace is an interpretive display that includes a sundial and markers that identify the nearby Boston Mountains, fourteen miles to the south, from which the Confederates advanced to Pea Ridge. This area is completely enclosed by forest vegetation.

- Tour stop 7 is the east overlook that consists of a large parking area with spaces for twelve cars and two spaces for RV/

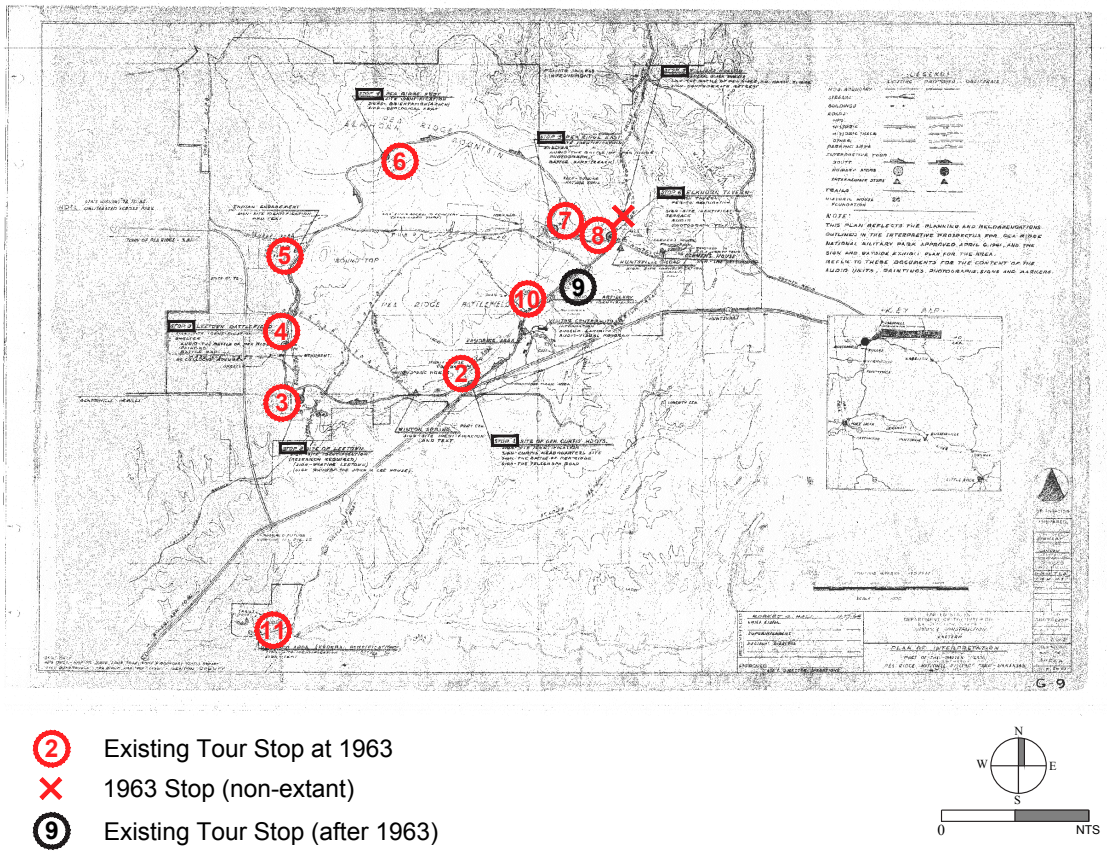


Figure 3-21. The 1963 construction of the tour road included tour stops to provide interpretation. Most remain (source: PERI, annotation by MB).



Figure 3-22. Tour stop 6 is the west overlook (Source: MB 2013).

buses. An ADA-compliant concrete path extends downhill from the southwest edge of the parking area for 460 feet into the forest, arriving at a small shelter and round terrace. The shelter, built as part of the Mission 66 program, affords a broad open view of the battlefield landscape. Along its exterior wall are interpretive signs that describe the battle that was fought below.

- Elkhorn Tavern is the eighth tour stop, and is located at the base of Elkhorn Mountain on the east side of the park. This parking area has thirteen spaces for cars and two RV/bus spaces, a sandstone path that leads to the building and an interpretive sign. This stop commemorates the important role of Elkhorn Tavern as a battlefield, headquarters and field hospital.

- Tour stop 9 is a pull-off, south of and immediately adjacent to the Tour Road at Ruddick's Field. The pull-off accommodates four vehicles. An interpretive sign describes the Confederate charge of March 7, 1862, and the role that Telegraph Road and Ruddick's Field had in the Trail of Tears. A remnant of Telegraph Road is to the south of the Tour Road.

- The tenth (and final) tour stop within the main portion of the park is where the Union artillery deployed on the morning of March 8th. The stop is a pull-out set immediately adjacent to the Tour Road on its north edge with space for four cars. A mown path extends into the adjacent field where cannon denote the line of artillery and an interpretive sign describes the battle.

- An eleventh tour stop is at the Federal Trenches in the discontiguous southern section of the park. This is where the Union army built several trenches just prior to the Pea Ridge battle. This stop is not along the Tour Road.[3.15]



Figure 3-23. An asphalt path leads from the parking area to the east overlook (Source: MB 2013).

The Tour Road is in fair condition, although it has been prone to sinking since its construction in 1963. Repairs were made to the asphalt surface, gravel shoulder, culverts and bridges in the late 1980s and again in 1992.

The Tour Road remains very similar to its 1963 construction, particularly in alignment and width.[3.16] Unfortunately, portions of the Tour Road were built over the historic alignment of Telegraph Road, and several segments cross over or along other 1830s roads. This diminishes the integrity of Telegraph Road and the 1830s roads. The Tour Road creates a false sense of movement through the battlefield landscape as it has a circulation pattern that did not exist historically, and that does not convey the historic movement through the site. The Tour Road is a non-contributing feature to the cultural landscape. The Tour Road was designed and built as part of the NPS Mission 66 program and retains integrity as it remains in the same alignment, is of similar materials and width, and is characteristic of its original construction.

3.15 Park brochure

3.16 1963 Master Plan



Figure 3-24. Old Highway 72 (Source: PERI).



Figure 3-25. Highway 72 transects the park, dividing Leetown Battlefield into two parts of which the westernmost section is not accessible (Source: MB 2013).



Figure 3-26.U.S. Highway 62 provides vehicular access to the park. The route of the highway is being reconsidered with plans for its relocation south of the park boundary (Source: MB 2013).

The tour stops are in fair condition. They are non-contributing features as they were not present during the period of significance. Five of the ten extant tour stops were built in 1963, as part of the original seven primary tour stops proposed by the master plan.[3.17] Two other extant stops were proposed as intermediate stops in the master plan. Today these tour stops are 2, 4, 5, 6, 7 and 8. Tour stops 5 and 10 were those proposed to be intermediate stops. Tour stop 3 may also be original to the 1963 construction as it is in the planned location but is of a smaller, simpler configuration than noted on the original drawings. One proposed tour stop, northeast of Elkhorn Tavern, was never built. Several additional intermediate stops were proposed for Clemens', Huntsville Road and Winton Springs, but were never built.

All seven tour stops built in 1963, as part of the NPS Mission 66 program remain in their original locations and resemble the original 1963 construction. Five tour stops were built after 1965: 1, 3, 7, 9 and 10. Tour stop 7, the east overlook, retains integrity as it is very similar to its original construction and retains original materials. The parking area is in the same alignment and material as it was originally. Minor modifications to the shelter have been accomplished in a manner that preserves its original character.

Other 1963 tour stops have been modified (2, 5, 6); or are in locations and arrangements that diminish the integrity of the historic battlefield (4, 5, 8). Modifications include removal of original material such as sandstone walls and addition of concrete walkways.

3.17 1963 master plan.

Old Highway 72

Old Highway 72 was built in the 1920s. It followed an east / west alignment along the section line until it neared Elkhorn Tavern at which point it veered slightly to the southeast. In places, the highway was built over and obscured Ford Road as it traversed along the base of Elkhorn Mountain.

Old Highway 72 was demolished after the park was established in 1956 and before it opened in 1963. Traces of the highway, including road base, exist in places. Remnants of asphalt pavement exist in areas on the west end of Ford Road, and on the service road between Telegraph Road and Ford Road. Old Highway 72 was not present during the period of significance and is a non-contributing feature.

Highway 72

Highway 72 is an Arkansas state highway. This two-lane asphalt paved road extends along a north / south route for most of the west side of the park. The highway turns west towards the town of Pea Ridge on the park's north edge. Within the park, Highway 72 connects with U.S. Highway 62 near the park's south boundary. Highway 72 is in good condition.

Highway 72 crosses several historic agricultural fields that were part of the Battle of Pea Ridge on March 7, 1862. The highway divides Foster's Farm and Mayfield's Cornfield, and separates Lee's Cornfield from the remainder of the park. Highway 72 diminishes the integrity of the park and is a non-contributing feature.

U.S. Highway 62

U.S. Highway 62 is a two-lane asphalt paved road that extends across northern Arkansas and connects the towns of Bentonville and Eureka Springs. The road was built in the 1930s. This road currently extends through the park at the south edge. It is the primary vehicular access into the park and to the visitor center. The portions of U.S. Highway 62 within



Figure 3-27. Ford Road, along with portions of the demolished Highway 72 are used by park staff and by pedestrians, cyclists, and equestrians (Source: MB 2013).



Figure 3-28. Portions of Ford Road were converted into Highway 72 in the 1920s, which followed the base of Elkhorn Mountain. The highway was removed after the establishment of Pea Ridge National Military Park in the 1960s (Source: PERI).

the park are under consideration for re-routing. The road is scheduled to be removed from the park in 2014. A portion of the road will become the new entrance road into the park. The future alignment of the highway is expected to be along the park's southern boundary. Most of the existing road within the park will be demolished.

Ford Road

Ford Road is a two-rut road trace extending east/west at the base of Elkhorn Mountain. It connects to Telegraph Road on the east. The road is approximately eight-feet wide, and is worn and rocky. The alignment is obscured in some sections, and in others it is eroded. Today, Ford Road serves as part of the park's loop trail and for bicycle use. Ford Road is in fair condition.

Ford Road was built with the early Euro-American settlement of Pea Ridge in the 1830s prior to the Civil War. It was an important feature during the Battle of Pea Ridge. During the morning of March 8, 1862, Union troops advanced from Leetown Hamlet to clash with the Confederates along Ford Road. After the battle, the road continued to be used by the local community. Highway 72 was built along or adjacent to Ford Road. It is possible that portions of Ford Road were covered by and became part of Highway 72. Today, Ford Road generally follows its original alignment, although portions were disrupted by Highway 72. Ford Road is a contributing feature.

Foster's Lane

Foster's Lane lines two fields on the west side of the park. The east/west route follows the south edge of the field, and north/south route follows the field's west edge. Foster's Lane is a worn road trace, approximately eight-feet in width. The road travels along the north edge of Oberson's Field before turning north at Mayfield's Corn Field. The



Figure 3-29. Ford Road is a worn, two-rut track road trace (Source: MB 2013).



Figure 3-30. Foster's Lane is a narrow route that is part of the park loop trail (Source: MB 2013).



Figure 3-31. Winton Springs Road is paved, and the bridge has been rebuilt. It provides access to the horse trailhead (Source: MB 2013).



Figure 3-32. Winton Springs Road accessed the Winton Springs House, which was used as park headquarters before the 1960s. The route was a gravel and dirt lane that crossed a small drainage and ascended the hill (Source: PERI).

north/south portion of the road is narrower, at approximately six- feet, and travels through dense forest. Foster's Lane is currently a pedestrian trail, and part of the park loop trail. It is in poor to good condition.

Foster's Lane was likely established in the mid-1800s, and was in place during the Battle of Pea Ridge. Foster's Farm was the initial point where the battle began on March 7, 1862. The road likely assisted the Confederacy in their advance and confrontation with the Union army. After the battle the road was likely used by the local community, but by the time the park was established in 1956, the road was not readily discernible.

Foster's Lane is a contributing feature as it was present during the period of significance and played a role in the battle.

Oberson Road

This road extends from Foster's Lane, where it intersects Leetown Road, to the Ruddicks house site where it intersects with South Road. The road is generally a rutted dirt track, approximately six to eight-feet wide, and passable on foot and all-terrain vehicles. The road is not in current use and is in poor to fair condition.

This road is noted as being Oberson Road in the 1963 master plan, following the same alignment as it does today but extending further to the east to connect to Highway 72. The 1963 master plan proposed to preserve the road as a historic road trace.[3.18] The road is noted on Bearss 1965 map and as a historic road on Weih's map. This road was likely established in the mid-1800s, and was in place during the Battle of Pea Ridge.

Oberson Road is a contributing feature as it was present during the period of significance and played a role in the battle.

Winton Springs Road

This route extends from the Tour Road to the Winton Springs house site, through the horse parking area (where the road is not discernible), and then north to Lee Creek Road where it intersects Lee Creek. The segment between the Tour Road and house site is asphalt paved and approximately fourteen-feet wide. Just after the intersection with the Tour Road, the road crosses Winton Springs Branch via a bridge. Portions of the bridge are of masonry construction. To the east is a low water crossing set at the elevation of the stream. The road ends in a wide gravel parking area. The road and gravel parking area are in good condition.

The road segment north of the horse parking area was not reviewed during the June 2013 field investigations. According to park staff, this segment is generally a rutted dirt track in a poor to fair condition, passable on foot and all-terrain vehicles, and is not in current use.

This road was identified as Winton Springs Road in the 1963 master plan, where it appeared to follow the same alignment from the Tour Road to the house site as it does today. The road segment to the Winton Springs House was either established to access the house site when it was built or was improved at that time following an earlier alignment from the 1830s. The road is evident in 1940 aerial photographs. The Winton Springs Road was likely improved by the NPS in the 1950s, when they used the house as headquarters, administrative facilities and as staff housing. The low water crossing appears to predate the existing road and bridge. This road is noted on Bearss' 1965 map and as a historic road on Weih's map as being in place during the Battle of Pea Ridge. The original route may have been established as early as the mid-1800s.

Winton Springs Road is a contributing feature as it was present during the period of significance.

3.18 1963 Master Plan, sheet G-9

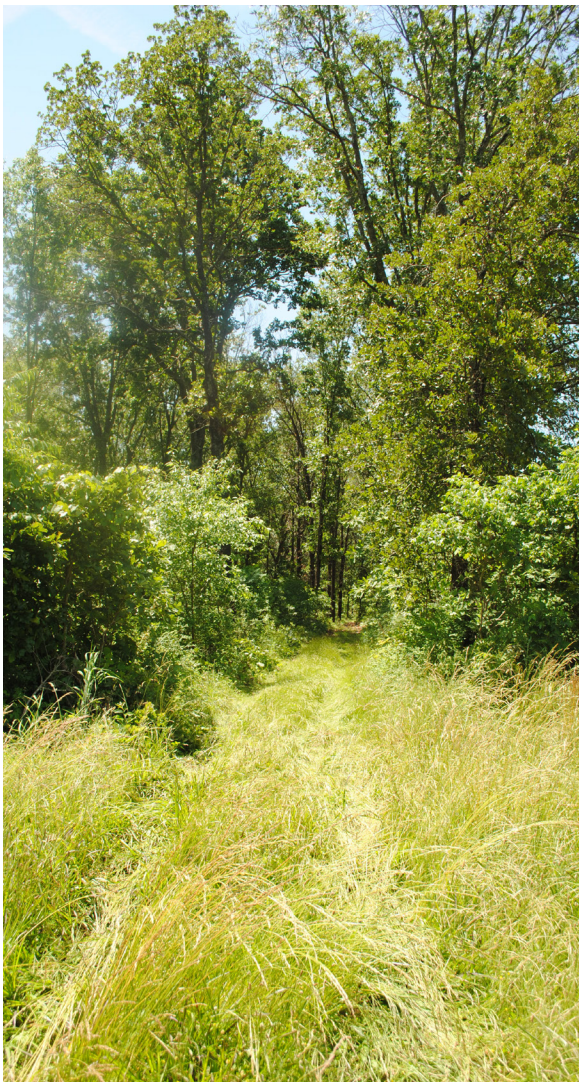


Figure 3-33. Leetown Road is a worn road trace covered with unmown grasses. It was an important route used by both armies during the Battle of Pea Ridge. It played an important role in transporting the wounded from Leetown Battlefield to the Union field hospitals in Leetown Hamlet (Source: MB 2013).

Leetown Road

Leetown Road extends north from Leetown Hamlet to Ford Road following a north / south alignment. Refer to Leetown Hamlet landscape character area for the section within Leetown Hamlet. From the Tour Road to the north, Leetown Road is an earthen road, approximately six-feet wide that serves as a park trail. In some areas, the route is rutted with some erosion. Leetown Road is in fair to good condition.

Leetown Road was identified as Round Top Road in the 1963 master plan with a route that appears to follows the same alignment as it does today. The route was proposed to be preserved as a historic road trace.[3.19] Both Bearss and Weih identified the route as being in place in 1862. The route was barely discernible in 1940s aerial photographs, but appears in the 1899 Fayetteville quadrangle map.

Leetown Road is a contributing feature as it was a critical transportation route and corridor for the 1862 battle. The road was present during the Battle of Pea Ridge, and was the route taken by the Union army as they advanced north from Leetown Hamlet to fight the Confederates. The road also served as transport for wounded soldiers.

Lee Creek Road

This route extends from Leetown Hamlet to Ford Road following Lee Creek. This road was not reviewed during the June 2013 field investigations. From park staff descriptions, this route is an earthen road trace. The majority of this road was washed out by a flood in the mid-1970s.

In the 1963 master plan, this route was identified as Leetown Road and was proposed to be preserved as a historic road trace.[3.20]

3.19 1963 master plan
3.20 1963 Master Plan.

Both Bearss and Weih identified the road as being in place in 1862. Segments of the road are visible in the 1940 aerial photographs. Only the northern segment appears in the 1899 Fayetteville quadrangle map.

Lee Creek Road is a contributing feature as it was present during the Battle of Pea Ridge.

Old Leetown Road / County Road

Old Leetown Road is an east / west route that extends from the park's western boundary to Leetown Hamlet, continuing east to U.S. Highway 62. The route varies from a gravel road of an approximate fifteen-foot width to an earthen alignment edged by rows of trees. The abandoned portion of Leetown Road between Highway 72 and Leetown Hamlet is overgrown and the road trace is barely visible. The park loop trail follows this road from Leetown Hamlet to U.S. Highway 62 where the trail turns northeast to follow the Tour Road. The condition of the route varies from poor to fair.

To the west of Highway 72, and outside the park boundaries, Old Leetown Road connects to the town of Pea Ridge and is known as Leetown Road. This road is a two-lane asphalt paved road that follows a portion of the south edge of the park. It serves local traffic, and is in good condition.

In the 1963 master plan, this route was unnamed and was proposed to be obliterated. This was likely due to it not being on Bearss' 1862 plan. Weih identified this route as one of the 1940s county roads.[3.21] However, this road is evident on the 1899 Fayetteville quadrangle as one of the area's main roads. It was also a primary route in the 1940s aerials. Old Leetown Road / County Road is a contributing feature as it is likely that the alignment was present during the period of significance.



Figure 3-34. Old Leetown Road where it parallels the tour road (Source: MB 2013).

3.21 Weih, 2006.



Figure 3-35. Portions of Telegraph Road were integrated into the Tour Road construction in the 1960s, between Elkhorn Tavern and the visitor center (Source: MB 2013).



Figure 3-36. Telegraph Road at Elkhorn Tavern, looking southwest towards the Tour Road (Source: MB 2013).

County Roads 1, 2, 3, 4, and 5

Several road traces remain from the construction of county roads in the 1940s. Some likely followed earlier road alignments, but these newer roads were improved along straighter and wider alignments to accommodate higher speed vehicles. In some cases, the earlier route was covered by the newer road surfacing, but in others the route was along side the existing road. Included within this construction were shorter routes to individual properties.[3.22]

The county roads are non-contributing features as they were not present during the period of significance.

Pratt's Road

According to Bearss and Weih, Pratt's Road was an L-shaped route located just to the north of Telegraph Road and the Tour Road, near tour stop 2. Pratt's Road would have historically connected to Telegraph Road and turned to follow Winton Springs Branch. The actual location and alignment of Pratt's Road is unknown. This road was not reviewed during the June 2013 field investigations.

In the 1963 master plan, Pratt's Road was proposed to be preserved as a historic road trace.[3.23] A slight trace of a linear feature is visible in the 1940s aerial photographs. Further research is needed to identify the location and alignment of Pratt's Road. If extant, this road would be a contributing feature.

Telegraph Road / Old Wire Road

Telegraph Road generally follows a northeast to southwest route through the park. Within the study area, Telegraph Road extends from the park's northern boundary to the Federal Trenches. The road varies in road type, surface materials, width, and condition depending on its location within the park. In some locations the original route was covered by the construction of the Tour Road in 1963 such as the segment between Elkhorn Tavern and Ruddick's Field.

Near the Federal Trenches, Telegraph Road is located to the east of the park boundary and connects to Sugar Creek Road.

Telegraph Road is a road trace for most of its length within the park. The road trace is typically a rutted route obscured by vegetation. Near tour stop 1, the road trace is to the north of the Tour Road and is interpreted as the Trails of Tears route. West of this area, between the Tour Road and U.S. Highway 62, the route is a road trace. An original segment is thought to be located south of U.S. Highway 62 outside the park and near the potential location of Pratt's Store. East of Ruddick's Field is a road trace on the south side of the Tour Road. North of Elkhorn Tavern, Telegraph Road is generally a narrow, rocky two-rutted road trace.

Telegraph Road varies from poor to fair condition depending on the segment.

Telegraph Road was originally built between 1830 and 1835 as the Springfield to Fayetteville Road.[3.24] The original twenty-five foot wide track was the primary route between Springfield, Missouri and Fort Smith, Arkansas. As a major route in the state, Telegraph Road served many functions including as one of the northern routes of the Trails of Tears between 1837 and 1839, as the route of the Butterfield Overland Stage, and by 1860, as the route of the first telegraph line in northwest Arkansas.

3.22 Weih, 2006.
3.23 1963 master plan.
3.24 Arkansas Register, Springfield to Fayetteville Road.

Telegraph Road Chronology

1830 to 1835	The Springfield to Fayetteville Road that would later be named Telegraph (Wire) Road was built between 1830 and 1835, as a 25-foot wide track. The road was the primary route between Springfield, Missouri and Fort Smith, Arkansas. Within the study area, the original Telegraph Road extended from the Bentonville Detour to the Federal Trenches. As Telegraph Road became a major thoroughfare for the area, stage stops were developed at Elkhorn Tavern and Brightwater.
1837 to 1839	Telegraph Road became part of the northern route of the Trail of Tears as thousands of American Indians were evicted from their homes in the east and forced to move to Indian Territory (Oklahoma) in the west.
1858	Telegraph Road became the route of the Butterfield Overland Stage. The effort was short-lived. The Butterfield ran a distance of over 2000 miles starting in Tipton, Missouri and extending through northwest Arkansas, ending in San Francisco.
1860	By 1860, Telegraph Road was the route of the first telegraph line in northwest Arkansas. The wire strung along the road gave Telegraph Road its name (also called Wire Road). The telegraph line ran from Springfield, Missouri to Fort Smith, but was cut less than a year later when Arkansas seceded from the Union in 1861.
March 5, 1862	Telegraph Road was used by Union troops as early as March 5th, 1862, when the army was entrenched above Little Sugar Creek and General Curtis was encamped at Pratt's Store. With the army's supplies at Elkhorn Tavern, the road was used by Union troops for communication and transportation between these points.[3.25]
March 7, 1862	The northern segment of Telegraph Road was used by Van Dorn and Price of the Confederate army. They reached Telegraph Road via the Bentonville Detour early on the morning of March 7, 1862, and then fought their way up Cross Timber Hollow along Telegraph Road. [3.26]
Late 1862	After the battle, Telegraph Road was used by the Union army until they decamped in late 1862.
1899	The road appears on the 1899 Fayetteville Quadrangle.
1940s	The road appears in 1940 aerial photographs.
1963	The Tour Road was built over portions of original alignment of Telegraph Road.

3.25 Bearss, Leetown, Elkhorn Tavern Grounds, Federal Earthworks, and Tanyard as of March 1862, 43.
3.26 Bond, John W. The History of Elkhorn Tavern, 12.



Figure 3-37. Telegraph Road in the 1960s, just east of Elkhorn Tavern (Source: PERI).

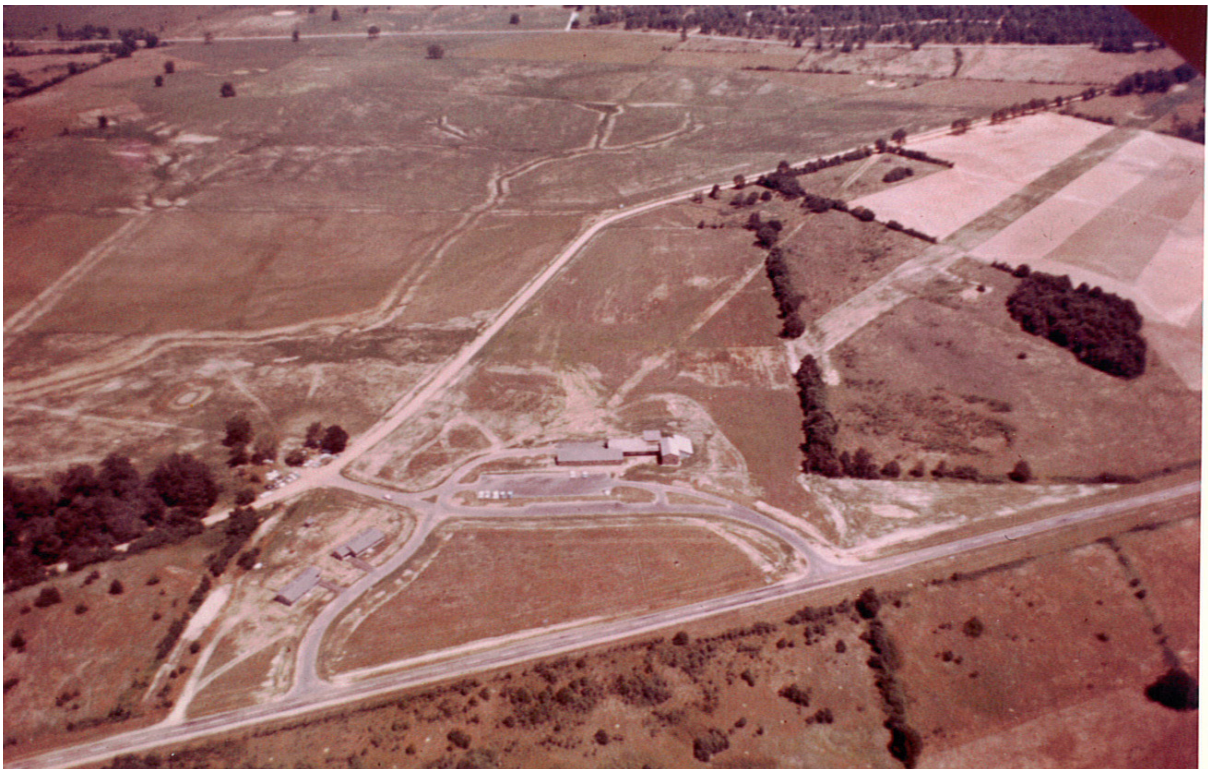


Figure 3-38. Telegraph Road in the 1960s (Source: PERI).



Figure 3-39. Huntsville Road: the view towards Elkhorn Tavern along the current-day alignment (Source: MB 2013).



Figure 3-40. The view to Elkhorn Tavern along Huntsville Road in 1940 reveals that the road was a narrow gravel surfaced road (Source: PERI).

During the Battle of Pea Ridge, Telegraph Road was a major transport route. The road was used by Union troops as early as March 5th, 1862, when the army was entrenched above Little Sugar Creek and General Curtis was encamped at Pratt's Store. With the army's supplies at Elkhorn Tavern, the road was used by Union troops for communication and transportation between these points.[3.27]

The northern segment of Telegraph Road was used by the Confederate army. Van Dorn and Price reached Telegraph Road via the Bentonville Detour early on the morning of March 7, 1862. They then fought their way up Cross Timber Hollow along Telegraph Road.

After the battle, Telegraph Road was used by the Union army until they decamped in late 1862.[3.28] The road appears on the 1899 Fayetteville Quadrangle and other 1900 era area maps, and on 1940 aerial photographs.

The historic road and road traces of Telegraph Road remain in place in many segments, and the general alignment of the other historic segments are relatively known. Even though segments were covered by the 1963 construction of the Tour Road, most of the road remains intact and its alignment discernible.

Telegraph Road is a contributing feature. It was present during the period of significance and played a major role as a transportation route during the Battle of Pea Ridge. The road is also significant for its association with the Trail of Tears National Historic Trail, the Butterfield Overland Stage, and as the route of the first telegraph line in northwest Arkansas.

3.27 Bearss, Leetown, Elkhorn Tavern Grounds, Federal Earthworks, and tanyard as of March 1862, 43.
3.28 Bond, John W. The History of Elkhorn Tavern, 12.

Huntsville Road

Huntsville Road extends from Elkhorn Tavern east to the edge of Clemens' Field, at which point it turns to the north to follow the west edge and then the north edge of the field. From Clemens' Field it extends to the east to the park boundary. The road is a mown grass-covered road trace, approximately eight-feet wide. Near Elkhorn Tavern, the road alignment is lined with fences. Beyond this area, to the east, the road trace visible in some locations, particularly along Clemens' Field. The road trace is in fair to good condition.

Huntsville Road was originally built in the 1830s. During the Battle of Pea Ridge, the road was the route of the Confederate retreat on March 8, 1862. The route is visible on the 1899 Fayetteville quadrangle and 1940 aerial photographs. The route was proposed to be preserved as a historic road in the 1963 master plan.

Today the mown route near Elkhorn Tavern, in comparison to historic mapping (1940 aerial photographs), appears to be similar to the original historic route. Further field investigations should be undertaken to identify the physical traces of the road in this area.

Huntsville Road is a contributing feature as it was present during the period of significance and played an important role in the Battle of Pea Ridge.

South Road

This route extends from Old Leetown Road near the intersection of the Tour Road and Telegraph Road to Huntsville Road at Clemens' Field. More than half of the road is south of U.S. Highway 62, outside the study area. The segment within the park, north of U.S. Highway 62, was reviewed during the June 2013 field investigations. This segment, near Ruddick's Field and along the north edge of Clemens' Field, is a maintained grass-covered road trace,



Figure 3-41. South Road near Clemens' Field (Source: MB 2013).

approximately eight-feet wide. From Clemens' Field to Ruddick's Field the road is part of the park's loop trail.

The 1963 master identified the segment of South Road within the park, to the north of U.S. Highway 62, as Ruddick's Road. It proposed that it be preserved as a historic road. Bearss and Weih identify this route as being present in 1862. The route is not on the 1899 Fayetteville quadrangle, and is barely discernible on the 1940 aerial photographs.

As part of the relocation of U.S. Highway 62, the full extent of South Road should be evaluated. The future alignment of the highway is expected to be along the park's southern boundary.

South Road is a contributing feature as it was present during the period of significance.

Alvin Seamster Road

This route extends from Telegraph Road at the northern park property line on a south / east alignment to Huntsville Road. This road was not reviewed during the June 2013 field investigations. According to park staff, the road is a remnant of a narrow gravel paved road.

According to the 1963 master plan, this route was the County Bypass Route, maintained by the county maintained road. It was to remain. The road appears on the 1940s aerial photograph but is less visible on the 1960s aerial photograph.

This road is non-contributing feature as it was not present during the period of significance.

Dodd Road

Dodd Road, on the west side of the park, is a north/south route between Highway 72 and the Bentonville Detour. It is a gravel road, approximately twenty-feet in width, used as a vehicular route. The road extends along the park boundary for the south portion of the route, with the historic Patterson's farm to the east and private land on the west. The north portion is bordered by park land on either side, and extends through forest before ending at a stop sign at Bentonville Detour. The road is in good condition.

Dodd Road was likely established in the mid-1800s, and in place during the battle. The road likely assisted the Confederacy in their advance and confrontation with the Union army. As the confederates advanced, General McCullogh descended south, along the west edge of Elkhorn Mountain. Dodd Road is likely one road that troops took on their route south, before clashing with the Union army at Leetown Battlefield. The 1963 master plan identified this as Prairie Road. Dodd Road is a contributing feature as it was present during the period of significance and played a role in the battle.

Twelve Corners Road

This route extends from Ford Road to the Bentonville Detour, north of the park. It follows the natural topography of Elkhorn Mountain and extends through forest. This road was not reviewed during the June 2013 field investigations.

Twelve Corner's Road was likely established in the mid-1800s, and in place during battle. The road assisted the Confederacy in their advance and confrontation with the Union army, and was a route troops took on their south march to Leetown Battlefield. It is possible that the road continued to be used by the community after the battle. Use of the road must have waned because the route is not on the 1899 Fayetteville quadrangle. It is not visible on the 1940, or 1960s aerial photographs, and does not appear on the 1963 master plan. Twelve Corners Road is a contributing feature as it was present during the period of significance and played a role in the battle.

Study Area

Contributing Circulation Features

- Ford Road
- Foster's Lane
- Oberson Road
- Winton Springs Road (Lee Creek to Tour Road and gravel parking area to Lee Creek)
- Leetown Road
- Lee Creek Road
- Old Leetown Road (further research)
- Pratt's Road (further research)
- Telegraph Road (also known as Old Wire Road, Trail of Tears, Butterfield Overland Stage, Springfield to Bentonville Road)
- Huntsville Road
- South Road
- Dodd Road
- Twelve Corners Road

Study Area

Non-Contributing Circulation Features

- Tour Road
- Old Highway 72
- Highway 72
- U.S. Highway 62
- County Roads 1, 2, 3, 4 and 5
- Alvin Seamster Road
- Park Loop Trail
- Horse Trail



Figure 3-42. The visitor center was modified in 2000. A peaked roof was added and additional space was built for administrative functions and museum exhibits (Source: MB 2013).

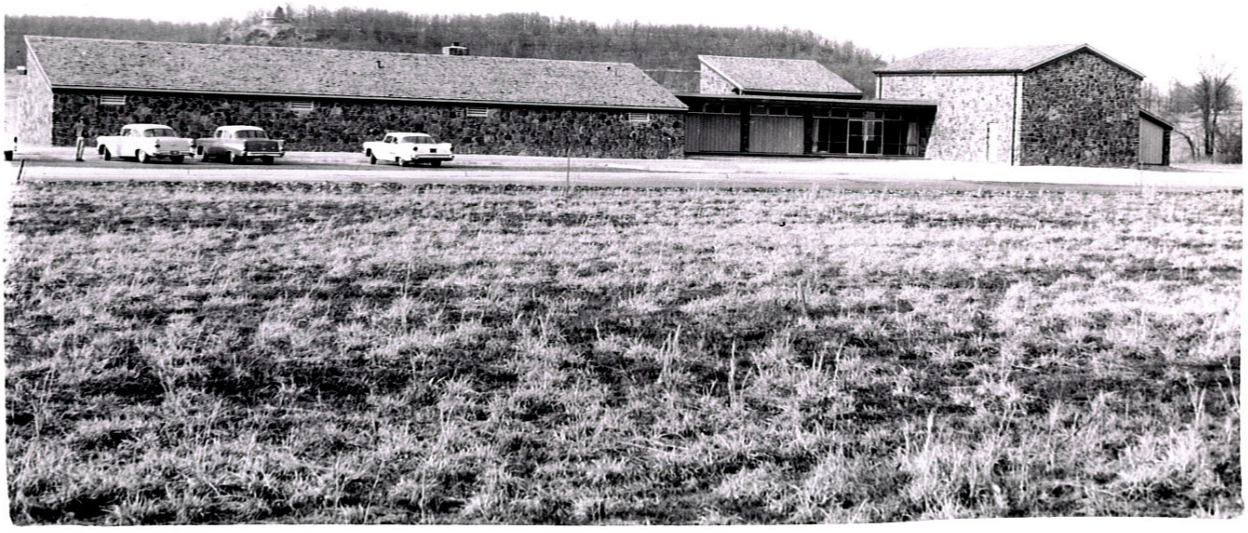


Figure 3-43. The visitor center was originally a single-story museum, office and maintenance space designed and built as part of the NPS Mission 66 program (Source: PERI).

Buildings and Structures

Existing Condition and Analysis

The buildings and structures include those extant at the time of the battle and reconstructed afterwards, others built after the battle, and elements built to commemorate the battle. Remnants and foundations of former buildings exist in several locations, and the locations of others are known but have no above-ground remains. Most of the park's buildings and structures are those built in the 1960s, as part of the development of the national park. These include visitor, administrative and maintenance buildings and structures.

The only extant historic building within the park is Elkhorn Tavern, which was built beginning in 1833, and reconstructed after the battle. Elkhorn Tavern and its associated non-extant outbuildings and structures are described and evaluated in more detail within the Elkhorn Tavern landscape character area.

Other buildings and structures important to the battle were those of Leetown Hamlet, established in c. 1840, that included from ten to fifteen buildings at the time of the battle. This area is described and evaluated in more detail within the Leetown Hamlet landscape character area.

During the Battle of Pea Ridge, the study area included many buildings and structures associated with the area's agricultural heritage. These included private dwellings, barns, stables and other outbuildings. Within certain areas such as Leetown Hamlet and along Telegraph Road, there were public buildings, stores and lodging for travelers. Structures included those for agricultural operations and subsistence including wells and spring boxes. Some of these structures remain.

Visitor Center

The park's visitor center was built in 1965 in compliance with the 1963 master plan.[3.29] The building was designed in the Mission 66 style as a single-story structure that provided park information, museum exhibits, an audio-visual program, a gift shop, and maintenance and office space.

The building has been modified several times since its original construction. Early changes included a new roof in 1970, a boiler room in 1984, and new walls, interior spaces and electric panel in 1989. The most extensive modifications occurred in 2000, with the addition of a new south façade and a pitched roof that extended over the original flat roofs. New interior space was created for the gift shop and exhibit spaces. The visitor center is in good condition.

The visitor center is a non-contributing feature as it was not present during the period of significance. The location of the building and its visibility from some locations along the Tour Road and from the battlefield diminish the integrity of the cultural landscape. At the time of construction, the building was constructed in an area thought to be outside of the battlefield. It was intended to be visible to the arriving visitor and to offer a "panoramic view starting at Round Top, and traversing the full length of Pea Ridge to Elkhorn Tavern." The site was to become "essentially wooded" to screen the building from the battlefield.[3.30]

The 1984 NRHP noted the building as historic, likely due to its design and construction as part of the Mission 66 program. Since that time, the building has undergone several modifications that have significantly altered its exterior façade, roof line and footprint.

3.29 1963 master plan.
3.30 1963 master plan, sheet G-4.



Figure 3-44. These twin buildings were originally designed for staff housing as part of the NPS Mission 66 program in the early 1960s. They are now used as administrative space (Source: MB 2013).



Figure 3-45. The maintenance structures and yard is gated and screened with vegetation (Source: MB 2013).

These modifications obscure the original simple Mission 66 design to the extent that it is no longer recognizable.

The GMP/EIS recommends relocating visitor and administrative functions to a new location on the west side of the park.

Administrative Facilities

Two administrative offices are located to the west of the visitor center, near U.S. Highway 62. The buildings are identical, single-story wood frame structures that provide offices for cultural and natural resources staff and administrative staff. The two buildings were built in 1965, in accordance with the 1963 master plan. They were originally designed as on-site staff housing.[3.31] The buildings are in good condition.

The buildings were converted to administrative facilities in 1995, at which time the single-car garages were modified to provide additional interior space. Aside from the removal of driveways and modifications to create a parking area, the buildings and site remain similar to their 1963 construction. The 1984 NRHP noted the buildings as historic, likely due to their design and construction as part of the Mission 66 program.

The administrative buildings are non-contributing features as they were not present during the period of significance.

Maintenance Facilities

The park maintenance area is located to the west of the administrative buildings on the south side of the Tour Road. The area consists of six buildings and one structure, and a maintenance yard.

Four buildings are within an enclosed area lined by a chain-link fence and screened with vegetation. Two buildings are outside the fence.

The maintenance facility provides storage for park maintenance equipment and work space for repairs. One is the park cache, providing an area for the fire truck and related fire equipment. Another is the roads, grounds and trails building. This houses the grounds equipment and shop. A lean-to structure houses grounds equipment. Another building houses hazardous materials (HAZMAT). The buildings outside the fence are used for the Black Powder program by the interpretive division. Two buildings were built in 1965, and others were added in 1993, 2004, 2006 and 2010. The maintenance area is in good condition.

The maintenance buildings and structures are non-contributing features as they were not present during the period of significance.

East Overlook Shelter

This structure was built by the NPS as part of the 1963 master plan and was finished in 1965. The shelter is a circular open-air structure, built on the edge of Elkhorn Mountain providing a panoramic view of the battlefield below.

The shelter is a wood frame structure with a wood frame roof that overhangs the entire space. A low stone masonry wall surrounds the south half of the shelter. The north half is open and connects to the walkway to the parking area. Interpretive panels mounted on a railing on the stone wall provide descriptions of the battle that occurred below. Seating is provided within the interior on a circular bench attached to the central core of the structure. Openings in the central wood structure include windows and a door.

3.31 1963 master plan.



Figure 3-46. Today the east overlook shelter is very similar to its 1960s design. The interior space is occasionally used by interpretive staff. The interior was rehabilitated in 2011. Interpretive panels are mounted on the edges of the original stone wall (Source: MB 2013).



Figure 3-47. The shelter at the east overlook was built in 1963 as part of the NPS Mission 66 program, to provide a panoramic view of the battlefield. The interior of the structure has a small room used by park staff for interpretation. (Source: PERI)





Figure 3-48. The east overlook shelter includes interpretive panels mounted to the original stone wall, above (Source: MB 2013). Openings between posts and stonework exceed present-day ABAAS standards (Source: MB 2013).

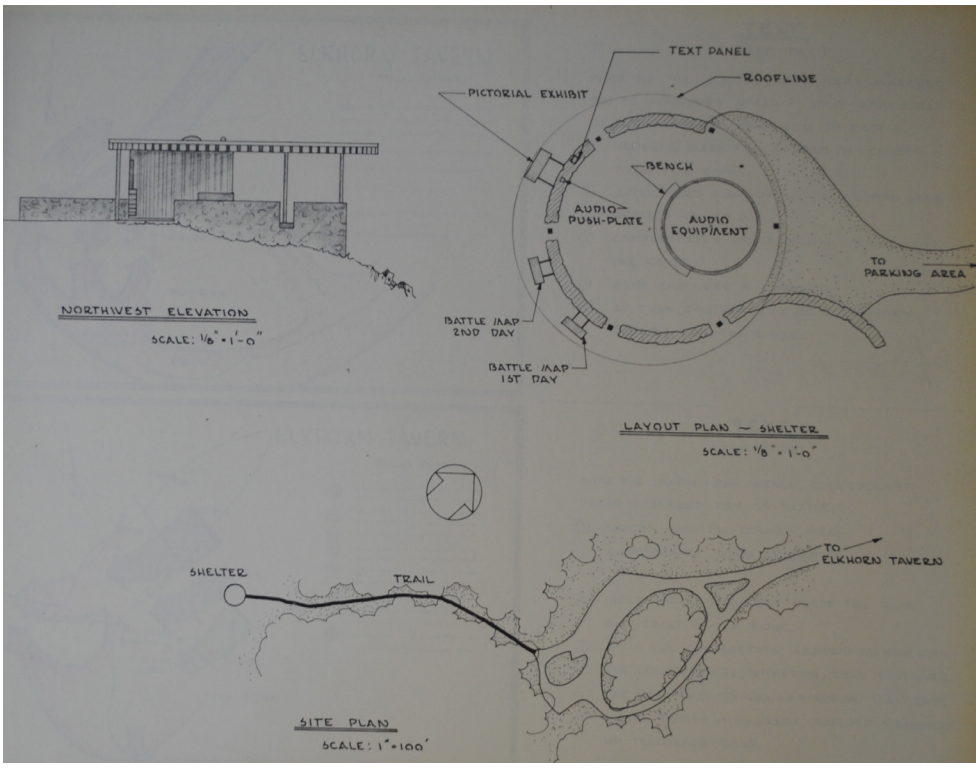


Figure 3-49. The east overlook was designed in the round to afford panoramic views of the battlefield. This floor plan remains (Source: PERI).



Figure 3-50. In 2013, the Winton Springs House foundation was covered with vegetation, obscuring most of the foundation (Source: MB 2013).



Figure 3-51. The Winton Springs House, c.1970 (Source: PERI).

Enclosing the small shelter and round terrace is a semi-circular stone wall of stacked sandstone, approximately one-foot wide and three-feet high. The wall curves and extends to the northeast beyond the shelter for about fifteen-feet.

The east overlook shelter was designed and built as a part of the Mission 66 program to provide panoramic views of the battlefield to the park visitor. The use of stone and wood, the streamline modern design of the shelter and its expansive overhanging roof are indicative of the Mission 66 style and were compatible with the original visitor center building. The interior of the structure was designed for use by park staff, accessed through the door. The windows open so that park staff can interact with visitors. The door and windows are open when the east overlook is staffed with interpreters.

The east overlook shelter is a non-contributing feature as it was not present during the period of significance. The shelter retains integrity to its original design as part of the Mission 66 program.

Winton Springs House Foundation

The foundation of the Winton Springs House is extant, and consists of a stone base on which ten-inch square timbers are set. A set of concrete steps occur on the east side. The square timbers appear to be hand-hewn with notched ends and rest on top of the stone foundation. In some places they have fallen over. The foundation is generally obscured by unmown grasses and other vegetation. Where most intact, the stone foundation is approximately three-feet above grade, and formed of large rectangular limestone blocks. Other parts of the foundation have fallen, sunken or been filled by the surrounding soil. A worm fence separates the area around the foundation from the adjacent parking area on the north.



Figure 3-52. The Winton Springs House was demolished in the 1990s after recommendations for its removal were made. The foundation remains, including hand-hewn timbers set on a flagstone base (Source: PERI).



Figure 3-53. Two small identical structures flanked the source of Winton Spring. It is unknown when they were built or removed (Source: PERI).

Winton Springs House Chronology

1860s, Civil War era	The original Winton Springs House was built prior to the Civil War (estimated).
1904 to 1915	Winton Springs House was modified.
1956	The building was used as a residence for the park superintendent when Pea Ridge National Military Park was established.
1960s	The building was modified into two apartments to provide housing for park staff.
1965	The building was in disrepair. There were problems with the well water that led to recommendations for the building's removal.
1973	The historic structures report indicated that the building, in a different form, was present at the time of the battle; and was important as a style of grandiose rural residential architecture relatively rare in the region.
1984	The NRHP noted the building as historic.
1993	Due to estimates of costly repairs, the building was razed. Demolition was stopped when the foundation revealed materials and construction techniques indicative of the Civil War era.



Figure 3-54. The remnant log cabin in Morgan's Woods to the west of Lee Creek is a brick foundation with hand-hewn, squared log timbers with dove-tail joints. The cabin measures twenty-feet by sixteen-feet (Source: MB 2013).

The Winton Springs House foundation is in fair condition as sections of it are still relatively intact and provide a sense of the scale and construction of the building. Other sections have fallen, making it difficult to completely discern the original building footprint. In addition to the remnant foundation, a pair of small stone well houses were originally located adjacent to Winton Springs, downhill from the main house. It is unknown if there are remains of these structures.

The Winton Springs House, or an earlier building on the same site, may date from the Civil War.[3.32] The extant foundation is that of a building, constructed or modified between 1904 and 1915. The building along with outbuildings, fields, the road, and a pond are visible in the 1940 aerial photograph. Remnants of the outbuildings, possibly a flour mill and carding machine, may exist. In 1956, the Winton Springs House was used as the residence for the park superintendent. It was modified in the 1960s into two apartments for park staff housing. By 1965, the building was in disrepair and problems with the well water led to recommendations for its removal. A 1973 historic structures report identified the building, in a different form, as being present at the time of the battle. It also indicated that the building was of a grandiose rural residential architectural style, relatively rare in the region.

The Winton Springs House foundation is a contributing feature as it may have been present during the period of significance.[3.33] Further field investigations should be undertaken to determine if other features remain.

3.32 1973 Historic Structures Report.
3.33 1984 NRHP.

Log Cabin (Morgan's Woods)

The extant remnants of a log cabin are located within Morgan's Woods on the west side of Lee Creek along Oberson Road. The road now functions as a park trail.

The cabin is located approximately forty-feet to the north of Oberson Road. It consists of a brick foundation with hand-hewn, squared log timbers with dove-tail joints.

The cabin measures twenty-feet by sixteen-feet. The roof has collapsed and the walls have mostly fallen. Portions of the walls are approximately four-feet tall. In other locations the walls have fallen completely. The foundation is overgrown with shrubs and small trees, camouflaging the structure. A large walnut tree is to the northeast of the cabin and may date from the same time the cabin was constructed. A road trace is on the east of the cabin, in a north/south orientation, and may be a drive or parking area associated with the log cabin.

The log cabin foundation is in poor condition.

It is unknown when the log cabin was built, but it is possible that it was present during the time of the battle. Further research and field investigations are needed to determine if the log cabin is a contributing or non-contributing feature.

House Foundation (tour stop 2)

A stone foundation is located just northwest of the parking area at tour stop 2 along the Tour Road. A mown path extends from the parking area to the foundation. The foundation is stone blocks, measuring approximately twenty-feet square. The foundation is covered with grasses and is in good condition.

It is unknown if this foundation is associated with a building or structure from the time



Figure 3-55. A house foundation near tour stop 2 consists of stone blocks, and measures approximately twenty-feet square. The foundation is covered with grasses and is in good condition (Source: MB 2013).



Figure 3-56. It is unknown when the house located near tour stop 2 was built, although it was not present in the 1970s. Winton Springs House is in the background (Source: PERI).



Figure 3-57. Current view from the east overlook towards Ford Road (Source: MB 2013).



Figure 3-58. The Ruddick (Ford) House was built after the Battle of Pea Ridge. It was extant in the 1940s. It is unknown when the house and barn were removed (Source: PERI).

of the battle. The 1963 master notes a remnant to be extant at that time, labeled as "Pratt's House Foundation."[3.34] It is now thought that Pratt's Store and associated buildings are further south on the south side of U.S. Highway 62. It is not known when the building was removed, but several structures and small fields are visible in this area on the 1940 aerial photograph. The remnants of one structure is visible on the 1960 aerial photograph.

Ruddick (G.W. Ford) House and Barn Foundation

These foundations were not observed during the June 2013 field investigations. It is unknown when the structures were built, but G.W. Ford's house and barn were present at the time of the battle. According to Colonel Coler, "Early on the morning of the 8th the wings of the regiment (the 25th Illinois) were again united, and I was ordered to take a position in an open field under cover of a fence and log barn almost 100 yards in front of Welfley's battery, and not over 900 yards from the batteries of the enemy."[3.35]

It is unknown what happened to the structures after the battle. They may have burned and been rebuilt. Later sources report that the Ford House was actually built by a later occupant of the property. In the 1860s after G.W. Ford passed away, eighty acres of the original farmland was sold. The land was forfeited for taxes in 1872. Eli Shepherd later reacquired the land from G.W. Ford, Jr. and others. Historian Alvin Seamster reported that the "ruins of the so-called Ford house were probably built by Eli Shepherd."[3.36] Photographs from Elkhorn Mountain in the 1930s show Ford's House, barn and other outbuildings.

The Ruddick (Ford) House was built after the Battle of Pea Ridge. The building was removed by the NPS in 1965.

Wallace Scott House

This foundation was not observed during the June 2013 field investigations.[3.37] Historic photographs document its presence. The building was removed by the NPS in the 1960s.[3.38] It is unknown when this building was constructed or where within the park it was located.

Radium Rice House

The Radium Rice House served as the park headquarters from 1960 to 1963.[3.39] It is unknown where this building was located. It is likely the building was removed when the visitor center opened in 1965.

Further research is needed to identify the location of the Radium Rice House and to determine its significance.

Pratt's House / Store

According to Bearss and Weih, Pratt's House / Store was located on Pratt's Road just to the north of Telegraph Road, near tour stop 2 on the Tour Road. Newer research indicates that this is an incorrect location, and that Pratt's House / Store was located south of Highway 72. This location was not reviewed during the June 2013 field investigations.

It is unknown when Pratt's House / Store was originally built or when it was removed. Pratt's House / Store was present at the time of the Battle of Pea Ridge. It was used by Union General Curtis, Generals Sigel, Asboth and other commanders of divisions as headquarters. It is possible that like Leetown Hamlet, the building was abandoned after the battle.

3.34 1963 Master Plan, sheet G-9.
3.35 O.R., Series I, Vol. VIII, 222; in Bearss, sheet 49.
3.36 Seamster, untitled document.
3.37 Photographs dated 1960.
3.38 1962 Master Plan.
3.39 PERI Historic Photograph.

Further research is needed to identify the location of Pratt's House / Store.

J. Ruddick

According to Bearss and Weih, a structure associated with J. Ruddick was located to the east of the Winton Springs House across Winton Springs Branch. These structures are non-extant and no remains were identified during the June 2013 field investigations. The exact location is unknown.

Further research is needed to identify the location of the J. Ruddick structures or remnants. If evidence of the structures is found, the site and remnants may be considered contributing features as the J. Ruddick Farm was present at the time of the battle.

Patton House

A photograph from the park archives shows this house, built in 1888. It is unknown where this house was located.

Further research is needed to identify the location of Patton House and to determine its significance.

Wiley Foster

According to Bearss and Weih, two structures associated with Wiley Foster are located west of Foster's Lane, and west of Highway 72. This location was not reviewed during the June 2013 field investigations. According to park staff, these structures are non-extant, but foundations may remain. Other elements such as wells may also remain.

Further research is needed to identify the exact location of the Wiley Foster structures or remnants. If evidence of the structures is found, the site and remnants may be considered contributing features as the Wiley Foster farm was present at the time of the battle.

Amos J. Patterson

According to Bearss and Weih, three structures associated with Amos J. Patterson are located north of Ford Road along the west boundary of the park. According to park staff, these structures are non-extant. The Patterson area was not reviewed during the June 2013 field investigations.

Further research is needed to identify the exact location of the Amos J. Patterson Structure or remnants. If evidence of the structures is found, the site and remnants may be considered contributing features as the Amos J. Patterson farm was present at the time of the battle.

Sturdy Cabin

According to Bearss and Weih, the Sturdy Cabin was located at the intersection of Leetown Road and Ford Road, on the west side. According to park staff, this structure is non-extant and the foundation was not identified during the June 2013 field investigations.

Further research is needed to identify the exact location of the Sturdy Cabin or remnants. If evidence of the structure is found, the site and remnants may be considered contributing features as the cabin was present at the time of the battle.



Figure 3-59. It is unknown where the Patton House was located, but it was extant in 1888. (Source: PERI).



Figure 3-60. It is unknown when the Wallace Scott house was built. It was extant in the 1960s, and likely removed by the NPS (Source: PERI).



Figure 3-61. The Radium Rice House served as park headquarters prior to the construction of the visitor center (Source: PERI).

Unidentified Structures

Several structures are known to exist within the park but have not yet been identified. According to Bearss and Weih, there were nine locations in the park where unidentified structures are located. These include:

- three unidentified structures north of Wiley Foster near Ford Road
- one near Sturdy Cabin
- two on the Tour Road near Winton Springs
- two near the J. Ruddick's Structures
- one between J. Ruddick's Structures and tour stop 2
- one at tour stop 2
- two north of Winton Springs within Pratt's Field
- three at the tanyard
- two at the Williams Hollow hospital site.

Aside from the tanyard, these locations were not reviewed during the June 2013 field investigations.

Further research is needed to identify the locations of these structures or remnants. If evidence of these structures are found, the site and remnants may be considered contributing features if they were present at the time of the battle.

Matthews House / Ray-Galen House

These two features are unidentified structures, and were not reviewed during the June 2013 field investigations.

Study Area Contributing Buildings and Structure

- Elkhorn Tavern (Elkhorn Tavern / Williams Hollow landscape character area)
  - o Barn, stable at Elkhorn and other outbuildings
  - o Blacksmith shop near Elkhorn Tavern
  - o Tanyard building (possible)
  - o Clemens' House and Barn
- Federal Trenches (Federal Trenches landscape character area)
- Leetown buildings (Leetown Hamlet landscape character area)
- Winton Springs House (foundation remnants)
- Winton Springs remnants / foundations – flour mill, spring houses /pump houses or other features
- Log Cabin (Morgan's Woods)
- Sturdy's House foundation
- Scott House foundations
- Pratt's House / Store
- J. Ruddick Structures
- Patton House
- Wiley Foster Structure
- Amos J. Patterson Structure

Study Area Non-Contributing Buildings and Structures

- visitor center
- administrative buildings (two)
- maintenance buildings (seven)
- Ruddick (G. W. Ford House) foundations and structure foundations
- House foundation (tour stop 2)
- Unidentified structures
- Radium Rice House foundations



Figure 3-62. The U.S. Army Headquarters Monument is located along U.S. Highway 62, and was built in 1935 (Source: PERI).

Small Scale Features

Existing Condition and Analysis

Small scale features within the park are primarily recent additions that provide safety, clarify access, and assist in interpretation. These features include fences and signs. One small scale feature, the U.S. Army Headquarters Monument was built in 1935 as a commemorative memorial.

At the time of the Battle of Pea Ridge, the area included many other small scale features that were important to the battle. Remnants of some may remain, such as remnant grade lines from the fencing used at the time to enclose fields. Most are non-extant.



Figure 3-63. The worm fence is the most common fence within the park. It is used to define historic fields and roadways (Source: MB 2013).

U.S. Army Headquarters Monument

This feature is located along U.S. Highway 62. The monument marks the site of the headquarters of the Union army and the location where the commanding officers camped during the Battle of Pea Ridge. The stone monument is a rough masonry fieldstone pillar approximately five-feet square. The monument is in good condition.

A bronze plaque is mounted at the center of the monument and reads:

U.S. Army Headquarters
1862
This site was the camp-ground for
commanding
officers and headquarters of
U.S. Army for Battle of Pea Ridge.
Here councils of war were held camp
for 10,500 soldiers U.S. Army located
1 1/2 miles south depot of supplies 1
mile north of this site.
Marked by
Winton Spring Farm
1935

The U.S. Army Headquarters Monument was built in 1935, to commemorate the site of the headquarters of General Curtis. Although the monument was built outside the period of significance, it is a contributing feature as it assists in commemorating the battle. The monument has been determined eligible for listing on the NRHP by the Arkansas SHPO.

Worm Fences

The predominant fence type within the park is a wood worm fence, built using notched alternating timbers that create a zig-zag line. The fence is approximately four-feet in height, and each rail section is approximately six-feet in length. This fence type is used to delineate the extents of fields, barnyards, woodlots and homesteads. It is also used as a barrier to control visitor access. For example, worm fencing lines both sides of the entry into the east overlook shelter. All existing worm fences are reproductions of historic fence type and are placed as close as practicable to known historic fence lines.[3.40]

3.40 Interview with park staff, October 2013.



Figure 3-64. A worm fence with a top rail surrounds the peach orchard at Ford's Farm (Source: MB 2013).



Figure 3-65. A post/rail fence at the visitor center (Source: MB 2013).

To determine the placement of fences to delineate historic fence lines, park staff consulted Bearss 1965 map and Weih's 2006 historic land use map. They verified the fence lines from these documents by reviewing the 1899 Fayetteville quadrangle and photographs from the 1940s and 1960s. When placing fence lines they investigated the site for evidence of grade change. In some cases, linear mounds or lines were identifiable. This enabled park staff to construct extant worm fence lines.[3.41]

The use of the worm fence to delineate known historic fence lines is compatible with the historic landscape and provides an important characteristic of the historic battlefield—the delineation of the historic fields. The worm fence is non-contributing, but the fence alignments when placed along historic lines are contributing features as they reflect the fences and fields present at the time of the battle.

Post and Rail Fence

A wood post and rail fence lines U.S. Highway 62 at the park entrance. At the entrance road, the fence connects to an entry sign / monument. The fence is in good condition.

The post and rail fence is a non-contributing feature as it was not present at the time of the battle.

Chain-link Fence

Chain-link fences of approximately six-feet in height enclose the maintenance facility and the rear entrance and maintenance area associated with the visitor center. The fence at the visitor center is black chain-link. The fences are in good condition.

The chain-link fences are non-contributing features as they were not present at the time of the battle.

Entrance Sign / Monument

The park entrance at U.S. Highway 62 is marked by a small sign / monument. The entrance sign / monument is a low rubble stone wall that connects to a concrete sign noting Pea Ridge National Military Park. The feature is in good condition.

The entrance sign / monument is a non-contributing feature as it was not present at the time of the battle. The entry monument was built in the 1960s as part of the Mission 66 program and retains a character similar to its original installation.

Stone Walls

Three of the Tour Road's interpretive stops include stone walls. These were originally built to define overlooks and tour stops, and in the case of the east and west overlooks, as railings for safety. The walls were built in the 1960s as part of the Mission 66 program for the interpretation of the battlefield landscape. The stone walls are in fair to good condition.

The stone walls are non-contributing features as they were not present at the time of the battle.

- At tour stop 2, a sandstone wall defines the west edge of the parking area. The wall is approximately one-foot wide and three-feet in height. It forms a rectangular terrace that has a view across the field to the north. Originally, this overlook held an interpretive panel, but it has been removed. This wall is in good condition.

- Tour stop 6 is the west overlook, and is located on the plateau of Elkhorn Mountain. This stop includes a large terrace, enclosed on the south by sandstone stacked walls. The walls are approximately one-foot wide and eighteen-inches in height above the terrace surface. The walls form a retaining wall on the downhill side, approximately five-feet at

3.41 Interview with park staff, October 2013.



Figure 3-66. Stone walls, built as part of NPS Mission 66 program in the 1960s, define the east and west overlooks. These walls are at the west overlook (Source: MB 2013).

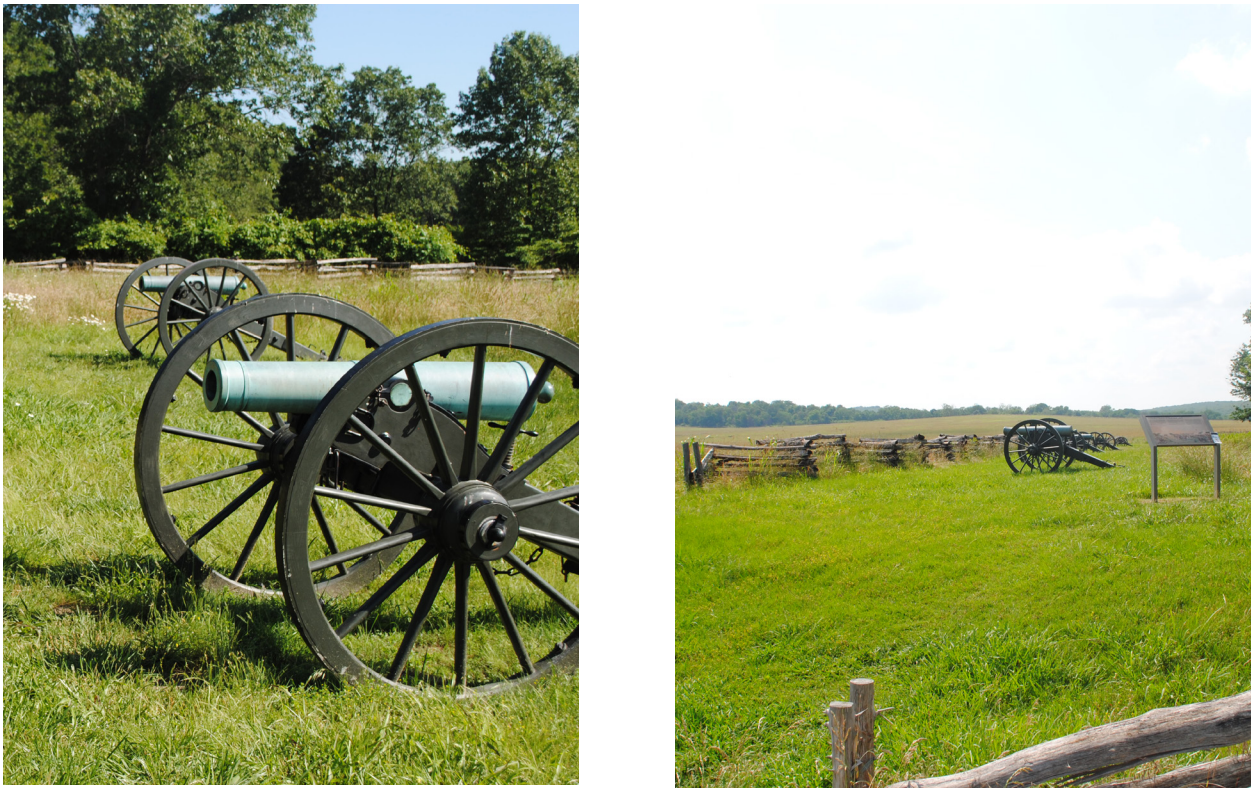


Figure 3-67. Lines of artillery are emplaced within the study area. The replica artillery are moved occasionally by park staff to depict battle segments (Source: MB 2013).

the highest point. Two rectangular stone walls create planters at the center of the terrace. They measure approximately six by eight-feet. The walls at tour stop 6 are in good condition.

- Tour stop 7 is the east overlook. The walls associated with this site are described and evaluated with the east overlook shelter in the Buildings and Structures section.

Artillery

Several lines of artillery are emplaced within the study area. At the time of the field investigations, artillery were placed in Oberson's Corn Field in two lines facing each other north/south; and in another line oriented east towards Leetown Road. Two lines of artillery occurred at Foster's Field, oriented north/south. At times, artillery has also been emplaced in Jesse Cox's Corn Field, one line facing northeast and the opposite facing southwest. Artillery have been emplaced at the intersection of the Tour Road with Ford Road, and in Ruddick's Field. The artillery are reproductions of those that are known to have been in use during the Battle of Pea Ridge.

The replica artillery are moved occasionally by park staff to depict other segments of the battle. Each is oriented as it would have been during one of the battles during the two-day battle. These are non-contributing features, however they assist in interpreting the battle to visitors.

Interpretive Signs

Interpretive signs are a part of each tour stop. These signs are typically interpretive panels that describe actions of the battle that took place near the tour stop.

The tour stops and locations for interpretive signs were first installed with the construction of the Tour Road in 1963. The signs were replaced in 2010, and are in fair to good condition. The interpretive signs are non-contributing features.

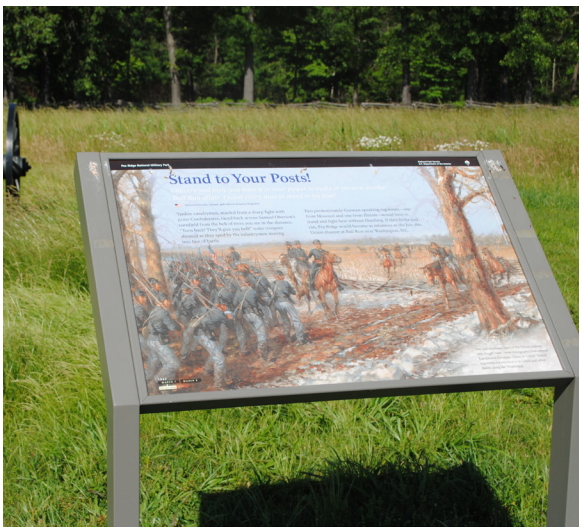


Figure 3-68. The standard interpretive signage at Pea Ridge National Military Park (Source: MB 2013).

Regulatory and Directional Signs

Signs throughout the park provide regulatory information such as identifying universal accessible parking and noting areas of closure. Other signs assist in wayfinding including small medallions placed on trees along the park loop trail such as on Foster's Lane and at the tanyard and Williams Hollow hospital site. The signs are non-contributing.

Study Area

Contributing Small Scale Features

- Fence Lines
- U.S. Army Headquarters Monument

Non-Contributing Small Scale Features

- Worm Fences
- Chain-link Fences
- Post and Rail Fences and Entrance Sign / Monument
- Interpretive Signs
- Regulatory and Directional Signs



Figure 3-69. The view from Elkhorn Mountain indicates the stark contrast between forest and field, and the vegetation in the fields appears less diverse than what had occurred in the 1940s, and likely in the 1860s as well (Source: MB 2013).



Figure 3-70. In 1940, as seen from Elkhorn Mountain, the vegetation appeared to be more diverse than today. The transition from cropland to woodland was not as abrupt, and different stages of forest regrowth occurred (Source: PERI).

Vegetation
Existing Condition

The plant communities of the park are relatively diverse, and are influenced by topography, water courses, and past and current human uses. The park is primarily composed of oak woodlands in a natural condition that surround mown grasslands and orchards. Tallgrass prairie occurs in the northwest section of the park.

The majority of the park supports a wet forest type. Elkhorn Mountain supports a dryer forest type than the rest of the park. The mown grasslands define the extents of former agricultural fields that also served as battlefields during the Battle of Pea Ridge. Grasslands are mowed more than once annually, and in some areas shrubland and sparse woodland have grown up after abandonment from previous agricultural production.[3.42]

Restoration of the tallgrass prairie began in 1975, east of the tour road south of Round Mountain.[3.43] The prairie that exists today, in the northwest section of the park, was planted in 2000 and 2001. These efforts included planting native tall grasses from seed with some native forbs present in the seed mixes. Over time, both native and non-native grasses and forbs may volunteer. [3.44]

Several extant trees that date to the time of the battle occur throughout the park. These large, mature trees have been identified by tree-ring dating. Some are more than 300 years old. These extant trees include fifteen oaks present during the battle: twelve are post oaks (*Quercus stellata*) and three are white oaks (*Quercus alba*). Of these, six trees date to the 1600s and two trees date to the 1700s.[3.45] Many are along the edges of agricultural fields and historic roads, such as Telegraph Road.

Two orchards are within the park. One is at Ford's Farm and contains twenty peach trees. The orchard at Elkhorn Tavern has twenty-eight apple trees. The trees are managed for appearance, not production.

The park's record of non-native plant species that exist within the park's boundaries includes patches of eastern red cedar (*Juniperus virginiana*). In addition, the park has identified twenty-two non-native plant species that are of most concern including Japanese honeysuckle (*Lonicera japonica*), fescue grasses (*Festuca* spp.), spotted knapweed (*Centaurea maculosa*), sericea lespedeza (*Lespedeza cuneata*), and Canada bluegrass (*Poa compressa*). The spread of these invasives has been facilitated by their ability to colonize and dominate areas, making the survival or succession of native plants difficult to impossible.[3.46]

The Vegetation Management Plan (VMP) identified nine natural and semi-natural vegetation communities.[3.47]

- Bottomland Deciduous Woodland and Forest with Black Walnut (*Juglans nigra*), Red Mulberry (*Morus rubra*), and American Elm (*Ulmus americana*) as key species. Coverage: 54.77 acres; less than 1.5%
- Dry Deciduous Woodland and Forest with Post Oak (*Quercus stellata*), Blackjack Oak (*Quercus marilandica*), Black Oak (*Quercus velutina*), Black Hickory (*Carya texana*), and Little bluestem (*Schizachyrium scoparium*) as key species. Coverage: 480 acres; 11.2%

3.42 Pea Ridge National Military Park Vegetation Mapping Draft, 3.
3.43 Huggard, Administrative History, 172.
3.44 Pea Ridge National Military Park Vegetation Mapping Draft, 41.
3.45 Edmondson and Stahle.
3.46 NPS, State of the Parks, June 2009, 48.
3.47 Pea Ridge National Military Park Vegetation Mapping Draft, 41.



Figure 3-71. Peach orchard at Ford's Farm (Source: MB 2013).



Figure 3-72. Tall grasses in the fields contrast with the dense deciduous woodland in most locations (Source: MB 2013).

- Eastern Redcedar Woodland and Forest with Eastern Red cedar (*Juniperus virginiana*) as the key species,. Coverage: 673.96 acres; 15.8%
- Marsh with Cattail (*Typha latifolia*) as key species. Coverage: .53 acres; less than 1.5%
- Mowed Grassland with Tall Fescue (*Schedonorus phoenix*) as the key species. Coverage: 568 acres; 13.3%
- Restored Tallgrass Prairie with Little Bluestem (*Schizachyrium scoparium*), Big Bluestem (*Andropogon gerardii*), and Coralberry (*Symphoricarpos orbiculatus*) as key species. Coverage: 60 acres; less than 1.5%
- Ruderal Grassland and Shrubland with Coralberry (*Symphoricarpos orbiculatus*), Winged Elm (*Ulmus alata*), Pennsylvania blackberry (*Rubus pensilvanicus*) and Tall Fescue (*Schedonorus phoenix*) as key species. Coverage: 363 acres; 8.5%
- Silver Maple Forest with Silver Maple (*Acer saccharinum*) and American Elm (*Ulmus americana*) as key species.

Mown lawn exists within the administrative area, visitor center, Elkhorn Tavern, horse trailhead, Ford Cemetery, and the Federal Trenches. Additional areas are also mown routinely, including areas adjacent to waysides and tour stops. Lawns are primarily fescue, and are located in areas that are heavily used by visitors. They are routinely mown, dependent on funding and personnel, and in line with the parks established mowing plan.[3.48]

Analysis

The present-day patterns and type of vegetation within the park remains relatively similar to what existed at the time of the battle and during the period of significance. The natural and man-made patterns of fields versus forested woodland remain similar to historic patterns.

Most existing woodlands and fields reflect the patterns and character of the battlefield vegetation despite some changes in the species composition. Other major changes include the encroachment of the forest into previously open areas, and an increase in density within the forest and woodlands. Fields have changed due to the elimination of crop and pastureland vegetation, replaced by grasses. Other changes include the increase of non-native species in the woodlands and forests, and the effects of fire suppression on the native vegetation.

The change of agricultural vegetation types, from corn and other crops to primarily pasture grass, has altered the appearance of the landscape from a working landscape to one that is more static. Agricultural fields such as Oberson's, Cox's, and Ruddick's fields remain relatively intact to their 1862 arrangements. Others are similar but have changed slightly such as those fields that are not cultivated to the extent that they were historically, such as at Clemens' Field and the west edge of Pratt's Field. Despite this change, the overall appearance of the pasture grasses reflects the alternating pattern of open fields contrasting with enclosed forest.

The Ford Farm peach orchard is fenced in a pattern similar to what occurred historically. Only a portion of the original orchard, approximately thirteen percent, has been replanted. An estimated 1500 trees would have existed historically. The existing trees were planted in the old roadbed of U.S. Highway 72.

Some areas of woodlands and forest are now denser than they were historically, including

3.48 VMP, 110.



Figure 3-73. Unmown pasture grasses indicate former agricultural fields (Source: MB 2013).

Morgan's Woods, near the Winton Springs House, Pratt's Store, near Leetown Hamlet and in Williams Hollow. In other locations, forest vegetation encroaches into historically open fields. Also, some areas that were historically forested are now open fields. Prior to European settlement, vegetation would have been composed of deciduous woodlands interspersed with tall grass prairie. After the 1830s, areas of forest and prairie were converted to agricultural fields, changing the native vegetation composition. This was further altered by fire suppression and logging. During the Battle of Pea Ridge, established agricultural fields, orchards, and woodlots existed on more level slopes with the native deciduous woodlands on steeper topography. During and immediately after the battle, it is likely that the agricultural fields were abandoned for a time. After the war, the area remained agricultural, as noted in the 1940s aerial photography, and continued as fields and pasturelands.[3.49] By the 1960s, fewer agricultural fields existed, some likely abandoned permanently and forest succession began. [3.50]



Figure 3-74. Vegetation includes mature trees that edge fence lines and roadways. While likely not from the period of significance, they reflect a pattern of tree planting established in the area in the 1800s (Source: MB 2013).

By the time the park opened in the 1960s, the extents of the agricultural fields no longer accurately reflected the period of significance. The restoration of native tall grass prairie began in 1975, although it was not placed in the correct location. In 2000 and 2001, the prairie was restored within a limited area on the west edge of the park. This area was a tallgrass prairie at the time of the battle.

During the 19th and early 20th century, fire suppression resulted in changes to the species composition within the park's hardwood forests and caused the eastern red cedar to dominate the vegetation in many areas. In compliance with the fire management plan, the park has used prescribed burns to restore

3.49 1940s aerial photograph
3.50 1960s aerial photograph

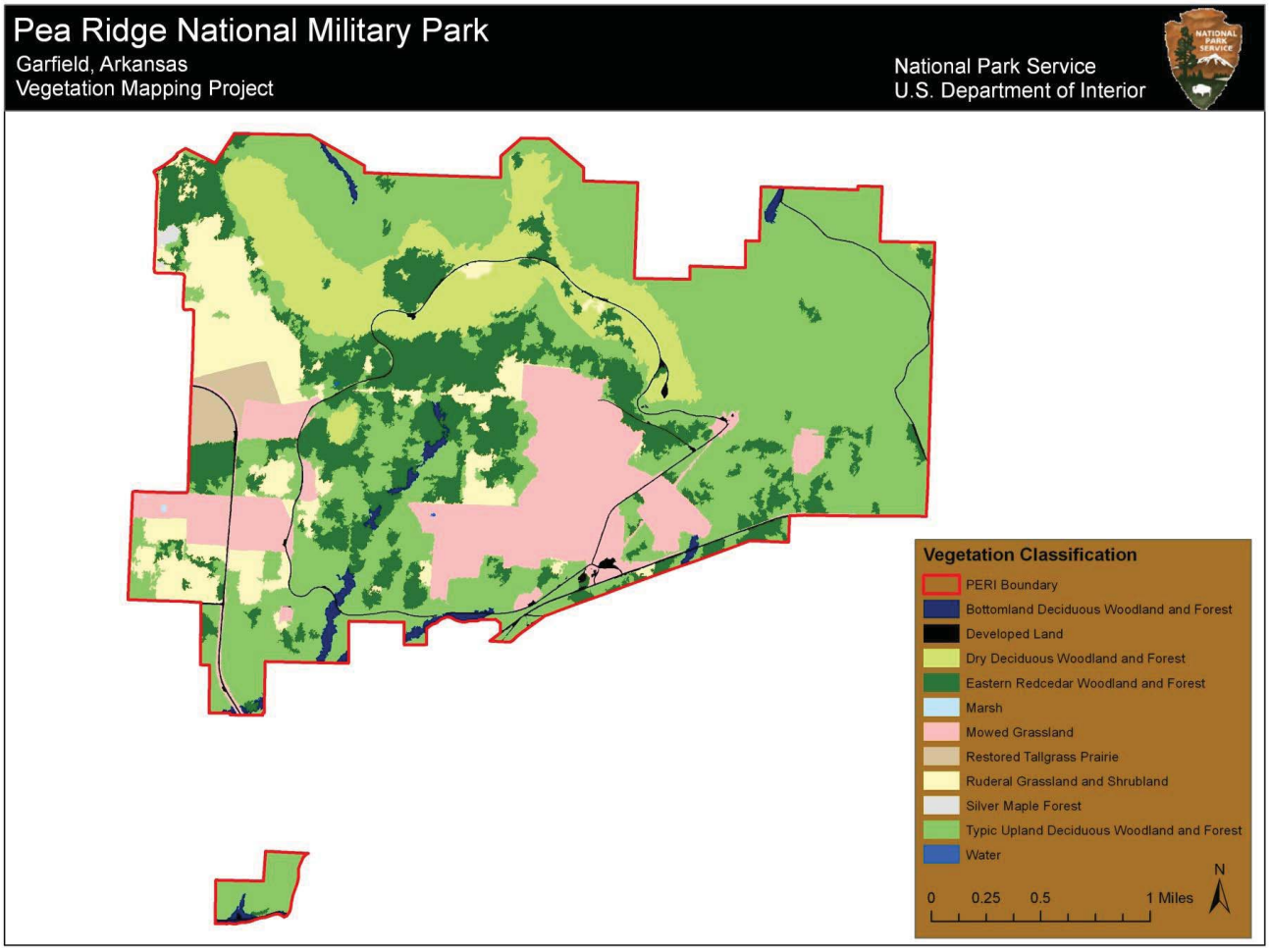


Figure 3-75. Existing Vegetation (Source: VMP 2014).

the native plant communities within the park. Recent clearing of these trees has begun.

Extant mature trees, primarily oak species, remain from the period of significance. It is unknown how many historic trees exist within the park, as not all have been documented. The historic trees are a significant feature of the cultural landscape, as they were witness to the battle in1862. Some are associated with domestic areas and others are within the forest and woodlands. It appears that some trees were allowed to grow along the edges of agricultural fields, around farmhouses, barns, and roadways. Some of these trees could have been intentionally planted, while others were allowed to grow where they did not obstruct historic activities.

These historic trees are contributing features as they were present during the battle. They contribute to the overall setting and feeling of the landscape. The witness trees are contributing features of the cultural landscape.

In general, the alternating pattern of fields and woodlands reflects the setting and feeling of the historic landscape. The majority of the park supports a wet forest type. Historically, the majority of the park consisted of and supported a Dry Open Woodland. In comparison to its historic appearance, the forest and woodland vegetation is more dense with undergrowth and smaller, more closely spaced trees. The vegetation located in the fields is different today than what occurred during the period of significance. During the historic period, the fields would have had a variety of crops grown, such as corn, wheat, or vegetables; today, the fields have a uniform appearance of grasses. Despite this change, the overall vegetation patterns remain similar to what existed at the time of the battle and contribute to the historic character of the cultural landscape.



Figure 3-76. The quarry is near the intersection of the Tour Road and Ford Road. It is oval shaped, approximately fifty-feet at the longest width, and is filled with water (Source: MB 2013).



Figure 3-77. The stock pond is on the west plot of Pratt's field. It was likely built to hold water for animals and irrigation (Source: MB 2013).

Constructed Water Features

Existing Conditions and Analysis

Water features include a stock pond located in Pratt's Field, the quarry/pond in the northwest portion of the park, and miscellaneous cisterns and wells. Some of the existing water features within the park may date from the period of significance, while most likely date from after the battle.

Quarry/Pond

A quarry is located near the intersection of the Tour Road and Ford Road. It is oval in shape and approximately fifty-feet at the longest width. The quarry is filled with water so it appears more like a pond than a quarry. The edges are wooded and some debris has fallen into the water making the water appear cloudy and brackish. Local oral histories suggest this quarry was used in the construction of Highway 72.

The quarry operations began in the early 1950s, and were stopped after the national park was established.[3.51] The quarry/pond is a non-contributing feature that is incompatible with the cultural landscape.

Stock Pond

A stock pond is located on the west plot of Pratt's Field, north of Winton Springs. This pond was likely built to hold water for animals and irrigation, and is situated in the center of the field. The edges of the pond have been kept clear of large vegetation with grasses and small shrubs lining the edge of the pond.

This pond was built sometime after the Civil War. It is not a contributing feature, although it is compatible with the agrarian landscape.

Wells

Several wells occur throughout the park. These wells were not recorded or evaluated during the June 2013 field investigations. Many have been filled in by the NPS for safety reasons, while others have not been and must be flagged in order to be visible.

Well on Foster's Lane

A stone well exists along the north/south portion of Foster's Lane in the woods between Oberson's Corn Field and Foster's Lane.

The well is approximately four-feet in diameter, and is located close to Foster's Lane. It is obscured by grasses, and has a wire screen over the top. The well is marked with flags.

It is unknown when this well was dug as no house remains have been located nearby. It is possible that it was installed as part of Foster's Farm.

Study Area
Contributing Constructed Water Features

- Wells pre-1865
- Well on Foster's Lane

Non-Contributing Constructed Water Features

- Quarry / Pond
- Stock pond

3.51 Interview with park staff

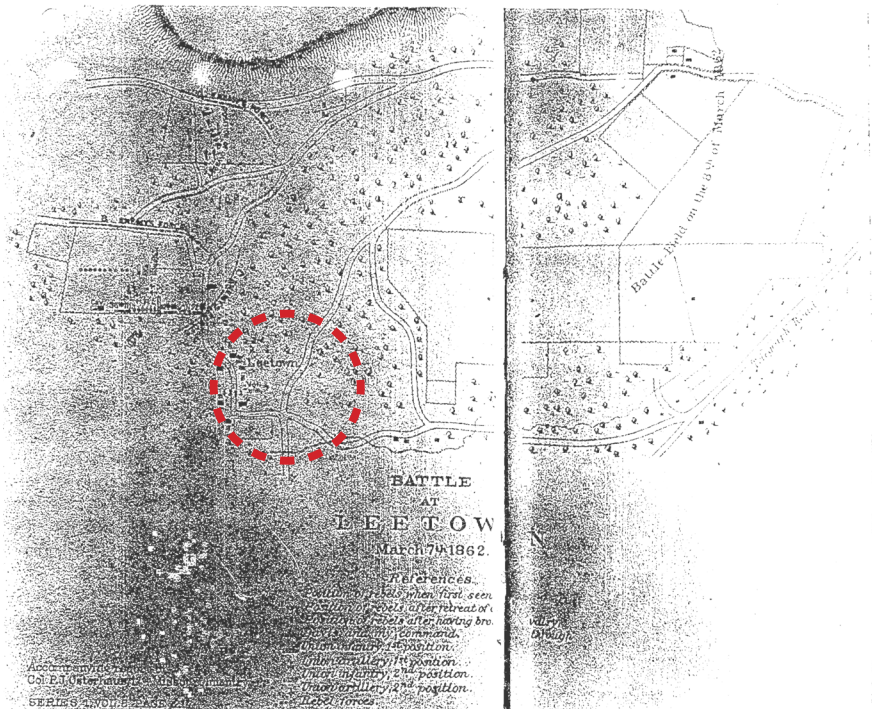


Figure 3-78. Map from Edwin Bearrs 1965 report on Leetown Hamlet (Bearrs, Leetown).

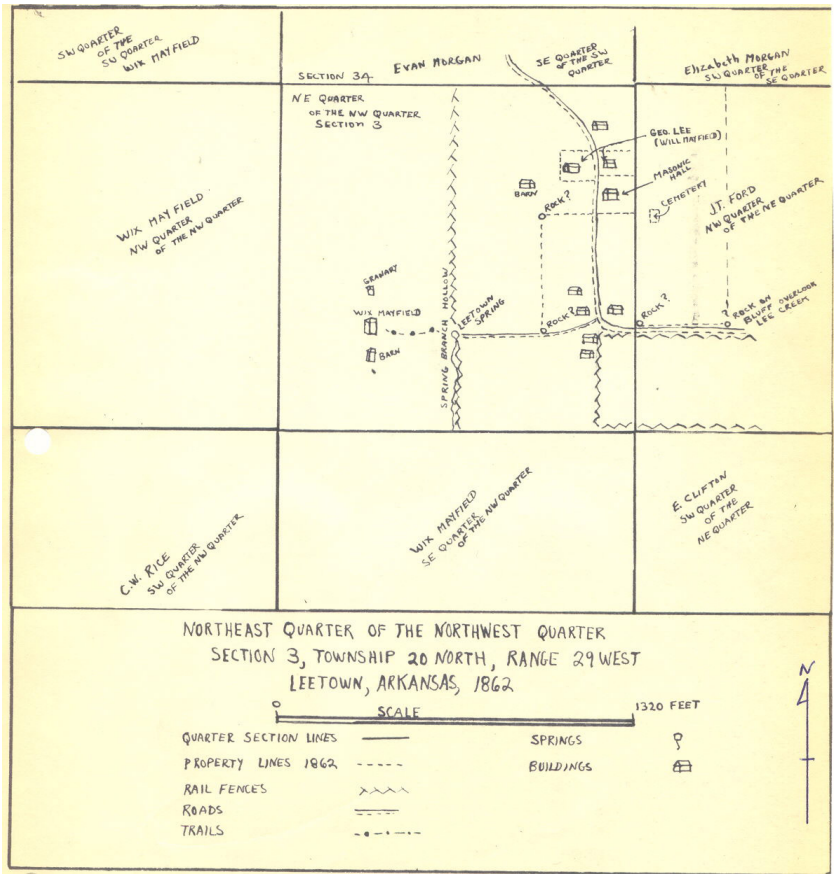


Figure 3-79. Bearrs' map of Leetown Hamlet, c.1965 (Bearrs, Leetown).

Leetown Hamlet

This landscape character area includes the archeological landscape of Leetown Hamlet, a small settlement that played an important role as a field hospital during the Battle of Pea Ridge [Figure 3-80]. The broader surroundings of the town, generally described as south of Old Leetown Road and west of Lee Creek, are included in this landscape character area as is Leetown Cemetery.[3.47]

Leetown Hamlet was founded in 1840, by John W. Lee, a farmer from Tennessee. Little is known about the town prior to the Civil War. Census and tax records indicated that no more than two or three families lived in the town at one time.[3.48] Leetown Hamlet is historically significant for its role as a field hospital for Union forces during the Battle of Pea Ridge. Most, if not all buildings and structures near Leetown Battlefield were used as field hospitals including those at Leetown Hamlet and at nearby Pratt's House/ Store.

Maps prepared by the military at the time of the battle located the town as generally one-quarter mile south of the battleground, but differ in depictions of number of buildings.[3.49] All included a central road with buildings on either side. A map drawn by Charlie Squires of the 37th Illinois also located the 'Wix' Mayfield house.

Historians of the 36th Illinois noted Leetown as a "hamlet of a dozen houses crowning the ridge, near the western extremity of the corn fields."[3.50] They described the area as a small clearing with "yellow hospital flags, fluttering from the gables of every house."[3.51] According to Union surgeon D.S. McGugin who treated the wounded, Leetown Hamlet consisted of twelve fairly meager single-story frame houses and log cabins. All had more than two rooms, were dark and poorly ventilated, and had 'apartments' (likely areas above the rafters for storage or sleeping quarters). Water was carried from the creek, "half a mile distant."[3.52] The last of Curtis' troops moved out of the Benton County area on March 19, 1862, and Leetown Hamlet was abandoned.[3.53]

Destruction and vandalism was rampant following the battle. Residents were gone, and the structures in Leetown Hamlet may have been destroyed very soon after the battle. In late October 1862, the Army of the Frontier camped on Leetown Battlefield but made no mention of the town or any nearby structures in their reports.[3.54] Any abandoned structures may also have been dismantled and removed over time with materials salvaged for use elsewhere.[3.55] By 1881, any remaining residents had moved on, likely due to opportunities offered by the construction of the nearby St. Louis and San Francisco railroad line. By this time all buildings were likely demolished.[3.56]

Today, archeologists agree on the general location of Leetown Hamlet. However, the exact location of the town and number and arrangement of associated buildings, structures and roads are unknown.

3.47 For this CLR/EA the term "archeological landscape" refers to a site with few extant above-grade contributing features, includes several known archeological sites and can be spatially defined by circulation features, vegetation or topography.
3.48 Bearss, Edwin. "Leetown, Elkhorn Tavern Grounds, Federal Earthworks, and Tanyard as of March 1862." Pea Ridge National Military Park. 1965.
3.49 Bearss. "Leetown," 76.
3.50 Bearss. "Leetown," 84.
3.51 Bearss. "Leetown," 78.
3.52 Herrmann, Jason T. "Interpreting Leetown through the Integration of Aerial and Ground-Based Remote Sensing Techniques." MA Thesis, University of Arkansas, 2004, 12.
3.53 Bearss. "Leetown," 91.
3.54 Ibid.
3.55 Bearss. "Leetown." 1965. Herrmann. "Interpreting Leetown," 12-13.
3.56 Herrmann. "Interpreting Leetown," 13.

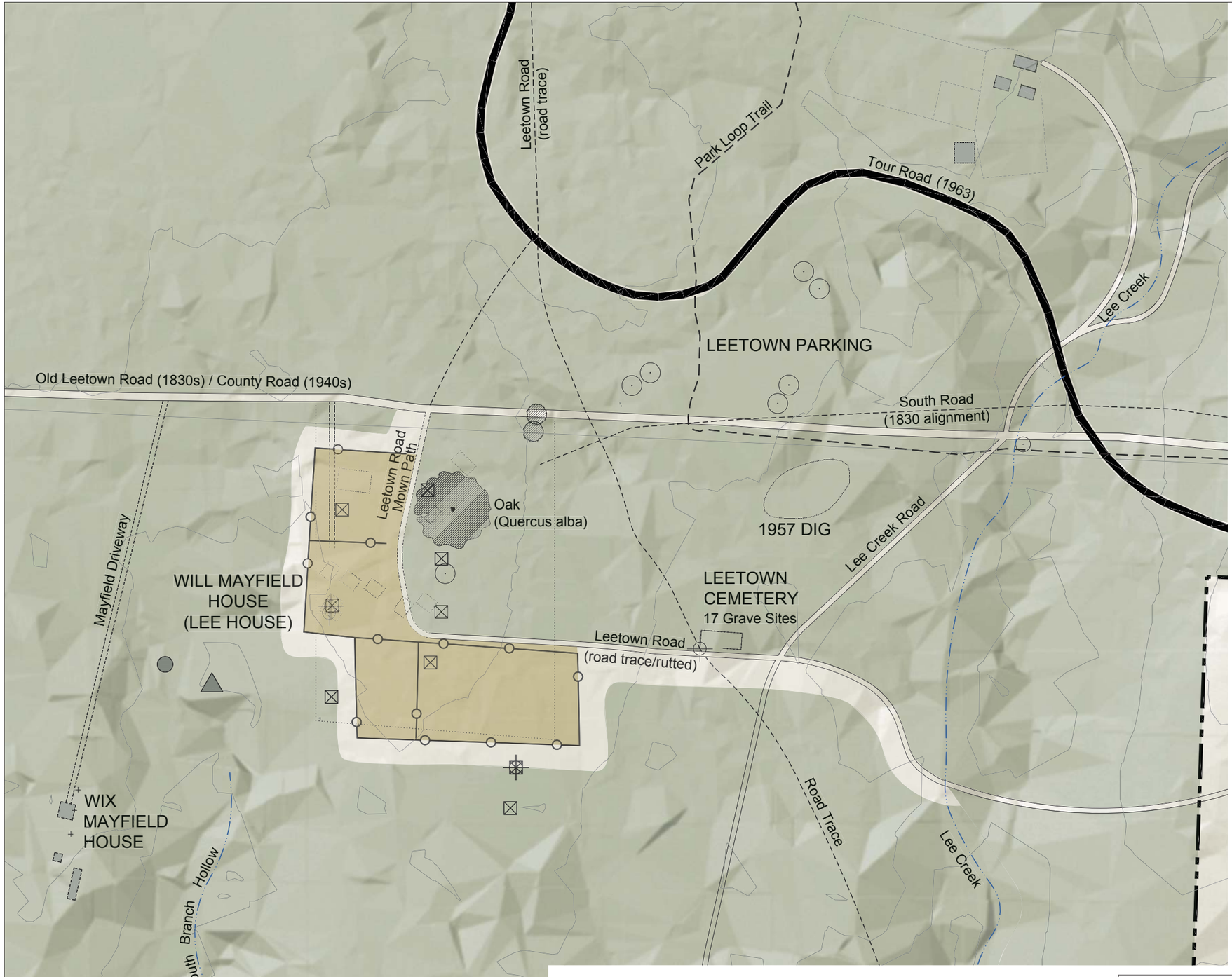
Edwin Bearss' historical research of the late 1950s, provided military records, plats, maps and surveys of the area, and first-hand (but conflicting) accounts by former area residents. Bearss' map reconstructions and interviews with locals identified the town and several buildings including a Masonic Lodge.[3.57]

The first archeological investigation of Leetown Hamlet was conducted in 1965, by Rex Wilson. Wilson's survey relied on Bearss' report and property records, but these proved to be inaccurate and he failed to locate any buildings or structures. Wilson documented Leetown Cemetery including seventeen grave sites.

More recently, Dr. Scott of the NPS-MWAC and Dr. Kay of University of Arkansas undertook archeological investigations within Pea Ridge National Military Park. Scott's investigations focused on distribution of artillery and munitions left from the battle. Kay's research focused on an inventory of both historic and prehistoric cultural resources. Kay identified two historic wells near Leetown Hamlet including a spring house foundation and a stone spring and several dump sites.[3.58] These are likely associated with the Will Mayfield House (Lee House).

In 2005, Jason Herrmann undertook geophysical and aerial remote sensing to identify structures and features associated with Leetown Hamlet. His findings included the footprint of a house attributed to the Will Mayfield House (Lee House), two road locations of which one was later attributed to the removed powerline, a rectilinear pattern of ditches and depressions, and six unidentified rectangular features of which three may indicate structures present in 1862.[3.59]

3.57 Bearss. "Leetown." 86.
3.58 Herrmann. "Interpreting Leetown." 8.
3.59 Herrmann. "Interpreting Leetown." 63.



Legend

- NPS BOUNDARY
- TOUR ROAD
- ROAD
- ROAD TRACE
- PARK LOOP TRAIL
- DRIVEWAY
- MOWN PATH
- WORM FENCE
- CEMETERY
- FENCE REMNANT
- TOPOGRAPHY
- STREAM / DRAINAGE
- GPS FIELD POINT 2013
- HISTORIC DUMP (Herrmann, 2005)
- EXISTING TREE
- GLO TREE (extant in 1842)
- NON-EXTANT BLDG/ STRUCTURE (1940s Aerial)
- NON-EXTANT BUILDING (Herrmann)
- NON-EXTANT BUILDING (Bearss)
- 1940s CLEARING
- FIELDS/PASTURES
- WOODLANDS
- OPEN FOREST - ALONG ROADS

Mapping Sources: Peri GIS Database; 1899 Fayetteville Quadrangle Aerial Photos 1940s, 1960s; Bearss 1960s; Weih 2002; Herrmann 2005

N W E S

0 200

PERI 409 125965

Figure 3-80.

AUGUST 2014	TITLE OF PROJECT CULTURAL LANDSCAPE REPORT AND ENVIRONMENTAL ASSESSMENT
UNITED STATES DEPARTMENT OF THE INTERIOR PEA RIDGE NATIONAL MILITARY PARK	TITLE OF DRAWING EXISTING CONDITION - LEETOWN HAMLET
	NAME OF PARK PEA RIDGE NATIONAL MILITARY PARK
	REGION MIDWEST · COUNTY BENTON · STATE ARKANSAS



Figure 7: Depictions of Leetown

A Lee House
B Masonic Lodge
C Wix Mayfield House
Unidentified Building
Cemetery
Rock
Spring
Fence
Road

Figure 3-81. Herrmann's 2004 study noted depictions of Leetown just after the Civil War and Bearss 1960s studies (Herrmann).

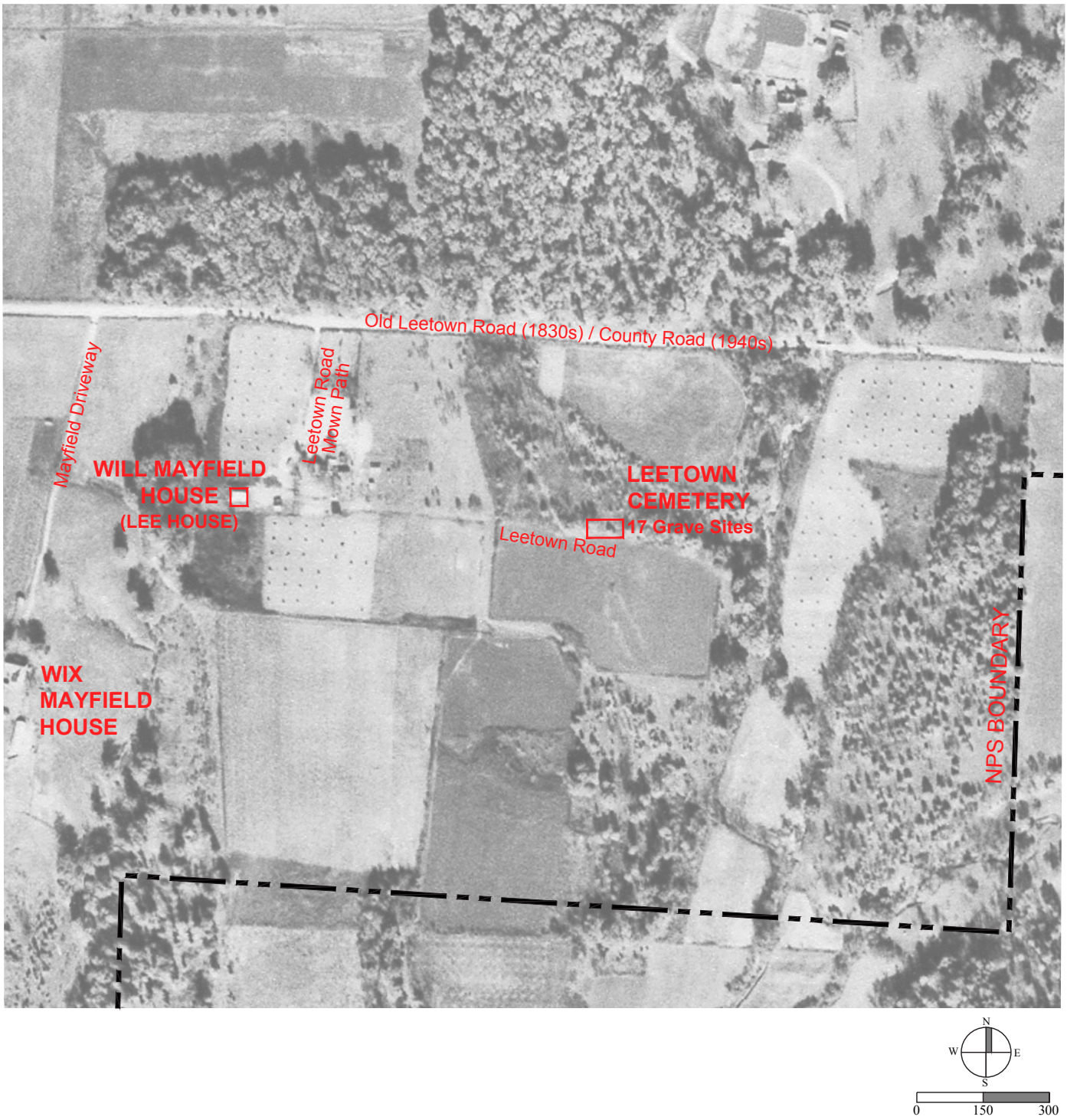


Figure 3-82. Leetown Hamlet during the 1940s (Source: PERI, annotation by MB).

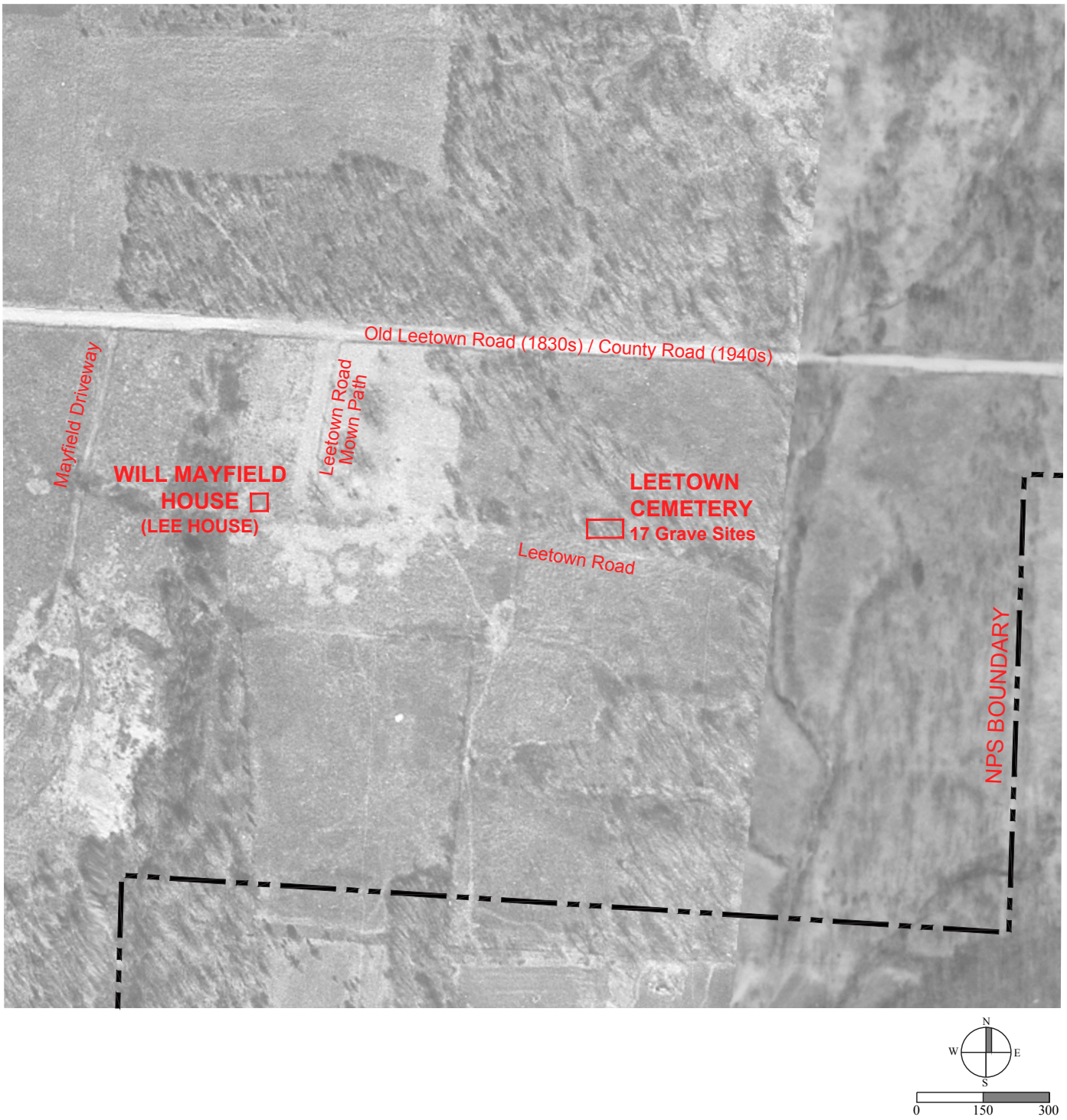


Figure 3-83. Leetown Hamlet during the 1960s (Source: PERI, annotation by MB).

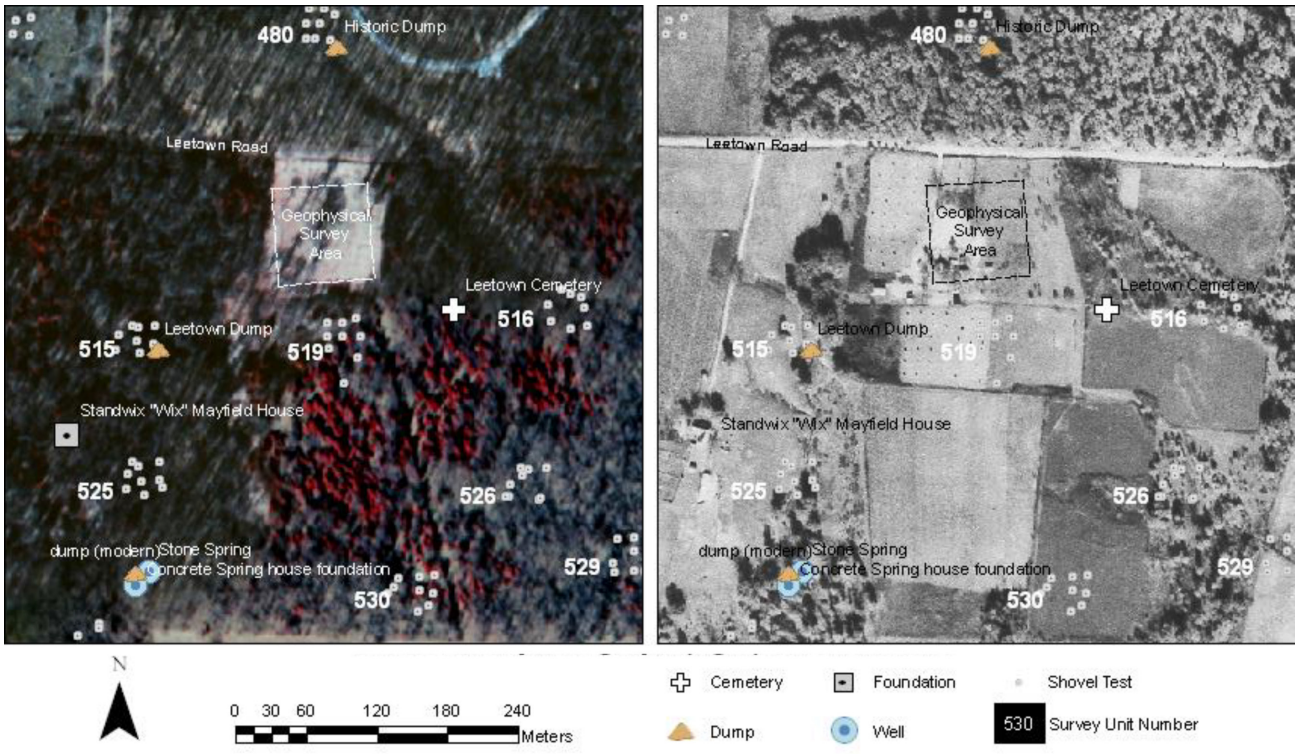


Figure 3-84. Above, Kay's survey of the vicinity of Leetown c. 2000 (Source: Herrmann).

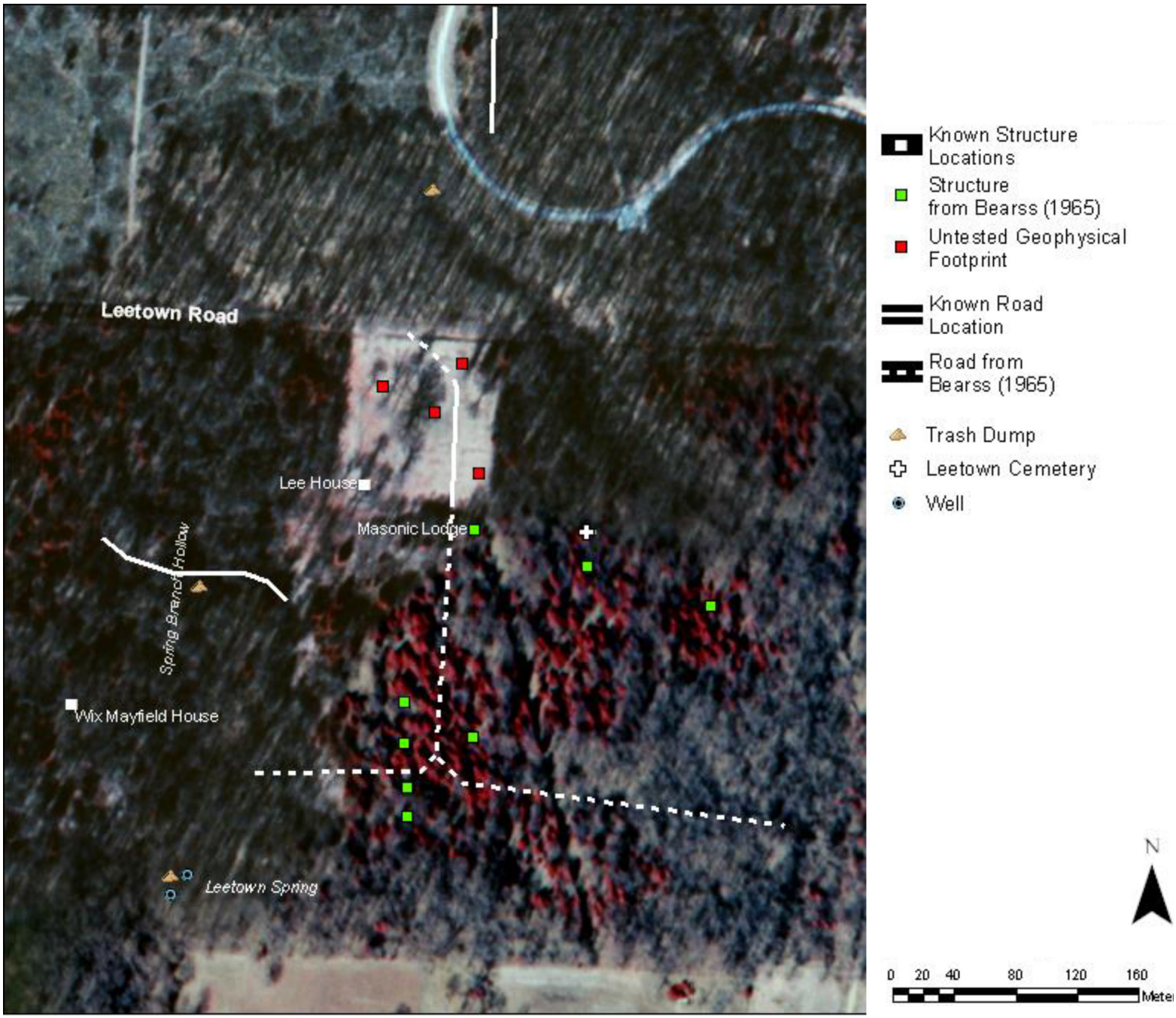


Figure 3-85. Herrmann's survey of Leetown c. 2005 (Source: Herrmann).



Figure 3-86. A grave marker identified in Bearss' 1965 report (Source: PERI).



Figure 3-87. Leetown Cemetery, 2013 (Source: MB 2013).

Land Use

Existing Condition

The primary land use of Leetown Hamlet is an archeological landscape consisting of the site of the former hamlet, an adjacent cemetery, woodlands, roads and agricultural fields associated with the town at the time of battle. Current land uses include visitor facilities such as the Tour Road and parking area, and interpretive elements. Recreational use includes hiking and walking trails through the former townsite. Leetown Cemetery exists within the Leetown Hamlet landscape character area.

Leetown Cemetery is located east of the area of Leetown Hamlet, along the north edge of Leetown Road. The cemetery is roughly thirty-five feet square and is a raised earthen plinth, slightly elevated above the adjacent ground. Remnants of a low wood fence occur along all four edges. The interior of the cemetery is covered with grasses and a single tree grows just inside the west edge. One tombstone, dated 1868, is readily visible. The full boundaries of the cemetery are unknown.

Analysis

Today, Leetown Hamlet retains the historic feeling of a townsite despite the absence of buildings and structures. The present-day condition is an open landscape, surrounded by woodlands and marked by mature trees. The site today evokes the setting that would have accompanied the buildings at the time of the battle. Although buildings are not present, the location, setting and feeling remain. The land use contributes to the historic character of the cultural landscape.

During the Battle of Pea Ridge, the land use of Leetown Hamlet was primarily residential, with agriculture activities nearby. The hamlet consisted of dwellings and outbuildings connected by a primitive road system to neighboring fields. Within the hamlet, land uses included a Masonic Lodge, general store, mill, and the Leetown Cemetery (likely established prior to the battle).

In 1862, during the Battle of Pea Ridge, the land use was a battlefield with the hamlet being primarily used as a hospital site where injured troops received treatment.[3.60]

After the battle, this land use disappeared leaving few traces of battle-related activities. After the Civil War and until 1956, the land use was residential and agricultural, with a few domestic structures and outbuildings nearby.

It is unknown when Leetown Cemetery was first established. Bearss first documented the cemetery in 1956, and noted that it likely dated to the period just after the Civil War. In 1965, Wilson identified one grave marker, engraved with “Robert Braden who was born Feb. 14, 1864, died Feb. 5, 1866.” [3.61]

According to Bearss, area residents believed the cemetery included the gravesite of a freedman named ‘Ike,’ freed as a result of the Civil War. [3.62]

As a land use, Leetown Cemetery is a contributing feature as it was built within the period of significance and has a direct connection to the Battle of Pea Ridge. The cemetery retains integrity as it remains in its original location, retains original features including grave markers and grave sites.

3.60 Bearss. “Leetown,” 84.
3.61 Bearss. “Leetown,” 90.
3.62 Bearss. “Leetown,” 91.



Figure 3-88. Leetown Hamlet is a large clearing within a densely wooded forest (Source: MB 2012).

Spatial Organization

Existing Condition

Leetown Hamlet consists of two clearings within a densely wooded forest, connected by road traces and trails. The Tour Road and tour stop 3 are located to the north of the clearings as is Old Leetown Road that extends east/west along the section line. A third clearing, located southwest of Leetown Hamlet, is likely the remains of the non-extant 'Wix' Mayfield House. This area was not reviewed during the June 2013 field investigations.

The larger of the two clearings is the area known as Leetown Hamlet. It is generally a rectangular-shaped clearing, approximately five-hundred feet by eight-hundred feet, delineated by worm fencing, and surrounded by forested vegetation with a dense understory. The clearing includes a few mature Oak trees and the remnants of a stone and brick foundation, thought to be that of the Will Mayfield House (Lee House) or of an adjacent barn or structure that existed at the time of the battle.[3.63] Bisecting the clearing from north to south is a mown path depicting Leetown Road. The path turns towards the east at the south edge of the clearing, where it becomes a rutted road trace.

East of the larger clearing is the second and smaller clearing. This is Leetown Cemetery. The clearing is approximately thirty-five square-feet, and is enclosed by deteriorated wire fencing with posts at three corners. Dense vegetation surrounds the cemetery clearing. The cemetery is located on bisecting road traces, both of which are lined with trees and defined by low eroded embankments.

To the southwest of the Leetown Hamlet clearing is the 'Wix' Mayfield House site. It is accessed from Old Leetown Road by a long driveway.

There are no visual connections between these spaces.

Analysis

According to historic accounts of the battle, Leetown Hamlet was an open clearing that consisted of buildings and structures with a central road. Due to limited historical documentation and inconclusive field investigations, the exact location and size of the town as well as the number of buildings and locations of roads is unknown. It was likely that the cluster of original buildings, thought to number between ten and fifteen, were enclosed by fences and surrounded by agricultural fields at the time of the battle.[3.64] These may have extended north to Leetown Battlefield.

Today, the arrangement of the non-historic worm fences, the large rectangular clearing, and the distinction between open space and forest assist in depicting the historic spatial qualities of Leetown Hamlet. In previous years, the park has maintained the clearing as low mown grass. Due to budget constraints, park staff has been unable to maintain the mown area to the extent needed and it is overgrown.

The forest between Leetown Hamlet and the Leetown Battlefield is heavily wooded. The density of trees per acre has increased over time, and there are no visual connections between these spaces. At the time of the winter battle, Leetown Battlefield would have been visible from Leetown Hamlet since the tree density would have been more open in the historic dry mesic forest.[3.65] Accounts from the battle noted troops leaving their "knapsacks. . .and marching through woody country with a dense underbrush."[3.66]

3.63 Herrmann. "Interpreting Leetown," 16.

3.64 Herrmann, 11.
3.65 Communications with park staff. VMP.
3.66 Bearss. "Leetown," 84.



Figure 3-89. Looking southeast to the Will Mayfield (Lee) house site, c. 1965 (Source: PERI).



Figure 3-90. Leetown Cemetery, c. 1965 (Source: PERI).

At Leetown Cemetery, the boundaries of the cemetery may correspond to the extant fencing, corner posts and topographic changes at the edges. Archeological investigations in 1965 identified seventeen graves within the cemetery.[3.67]

A determination of integrity for spatial organization for Leetown Hamlet is not possible at this time due to the lack of conclusive documentation on the location of buildings and structures, and discrepancies in locating Leetown Road. However, mowing a large area to reflect the extents of the original town assists in conveying the historic character.

With additional archeological investigations that include tying mapping to real-world ground-truthing and excavations, it is likely that identification of the full extent of the town is possible.

Leetown Cemetery retains integrity in spatial organization as the extent of the cemetery is discernible.

3.67 Wilson, Rex L. "Archeological Investigations in Pea Ridge National Military Park." Richmond, Virginia: U.S. Department of Interior, National Park Service. 1965.



Figure 3-91. Old Leetown Road, north of Leetown Hamlet, was modified in the 1940s as a county road (Source: MB 2012).



Figure 3-92. Leetown Road, east of Leetown Hamlet. View is from Leetown Cemetery towards Leetown Hamlet (Source: MB 2013).

Circulation

Existing Condition

The existing circulation within the Leetown Hamlet landscape character area consists of pedestrian and service vehicle routes. Leetown Hamlet is accessed from the Tour Road at tour stop 3, where four parking spaces and an interpretive sign signify the route to the town site.

Circulation features include a trail that is a portion of the park loop trail, Old Leetown Road / South Road that extends east/west through the area, the mown path of Leetown Road, and two road traces. A gravel driveway that connects the site of the non-extant 'Wix' Mayfield house to Old Leetown Road is also extant. This feature was not reviewed during the June 2013 field investigations.

Trail

A narrow pedestrian trail extends north/south, connecting to the Tour Road at tour stop 3 where there is a small parking area. The trail is a hardened gravel surface approximately five-feet wide. It extends south from the parking area to Old Leetown Road. The trail is in good condition.

Old Leetown Road

Old Leetown Road extends east/west from the park's west border through the Leetown Hamlet landscape character area, to connect to the Tour Road. The road is ten-feet wide, hard packed and gravel paved with vegetation covering portions of the road.

Leetown Road

Leetown Road is a north/south mown path that turns east at the south end of the clearing of Leetown Hamlet. At the edge of the clearing, the path becomes a two-track road trace covered with grasses that is approximately ten-feet wide. The road trace extends to Leetown Cemetery and on to Winton Springs Branch. The two-track is rutted and eroded in some sections. Overall, the mown path and road trace are in fair/good condition.



Figure 3-93. Leetown Hamlet trailhead and parking area at the Tour Road, tour stop 3 (Source: MB 2013).

Road from Leetown Cemetery

A road intersects Leetown Road at Leetown Cemetery. This road trace is approximately eight-feet wide and generally extends from the cemetery to the northwest to Old Leetown Road. The road trace has embankments on either side, and is slightly rutted. The surface is obscured by vegetation but it is passable. This road is visible in 1940 aerial photographs.

Lee Creek Road

This route extends from Leetown Hamlet to Ford Road following Lee Creek. This road was not reviewed during the June 2013 field investigations. According to park staff, the route is an earthen road trace.[3.68]

3.68 Communications with park staff.



Figure 3-94. This road trace is along the edge of Leetown Cemetery on a northwest/southeast alignment (Source: MB 2013).

Analysis

The extant circulation within Leetown Hamlet somewhat reflects the road system present during the period of significance. Roads noted as being present in 1862 include Leetown Road, Lee Creek Road and a road along the extant alignment of Old Leetown Road east of Leetown Hamlet. In 1899, Leetown Road extended from Old Leetown Road to Telegraph Road. Old Leetown Road extended west from Leetown Road along the section line as it does today.

Smaller roads and paths likely existed in 1862. These may have included routes between buildings, wells, barns and other features. These are not readily apparent today.

Due to scant historical documentation and inconsistencies in archeological investigations, there are several discrepancies. Later development and construction added roads in new locations, modified historic alignments, and graded over earlier routes. More archeological investigations are needed to definitively determine the historic and extant alignments of significant routes. However, a determination of some contributing features can be made.

Old Leetown Road

Old Leetown Road is a contributing feature. The route was unnamed in the 1963 master plan, and was proposed to be obliterated.[3.69] However, it may have been built in the 1830s as part of the early settlement of Pea Ridge and would have been in place during the battle. On the U.S. War Department Map of 1876, this may be the road that spurs off to the northwest from Leetown Road. The extant alignment of the road first appears on the 1899 Fayettville Quadrangle map as an east/west route that ends at Leetown Road. In the 1940s, this road was graded and gravel paved as a county road, and extended to the town of Pea Ridge.

Leetown Road

Leetown Road is a contributing feature as it was a critical transportation route and major transportation corridor for the 1862 battle. The road was present during the Battle of Pea Ridge. It was the route taken by the Union army as they advanced north from Leetown Hamlet to fight the Confederates. The road also served as transport for wounded soldiers who were brought back to Leetown Hamlet for care. Because of the significant role of this road, a determination of its actual alignment is critical. Although the mown path of Leetown Road was installed using the most current available information, it may not reflect the physical route. Further archeological investigations would be effective in revealing the alignment of this road.

Road from Leetown Cemetery

The origins of this road is unknown. However, a faint trace of the road is visible in the 1940 aerial photograph. The road may be associated with the power lines that were removed from the park in October 2007.

Lee Creek Road

The 1963 master plan identified this route as Leetown Road, to be preserved as a historic road trace.[3.70] Both Bearss and Weih identified this road as being in place in 1862. Segments of the road are visible in the 1940 aerial photographs.

Leetown Hamlet
Contributing Circulation Features

- Old Leetown Road
- Leetown Road – mown path alignment needs verification
- Leetown Road from clearing to Cemetery
- Lee Creek Road

Non-Contributing Circulation Features

- Park Loop Trail

3.69 1963 master plan.

3.70 1963 master plan.

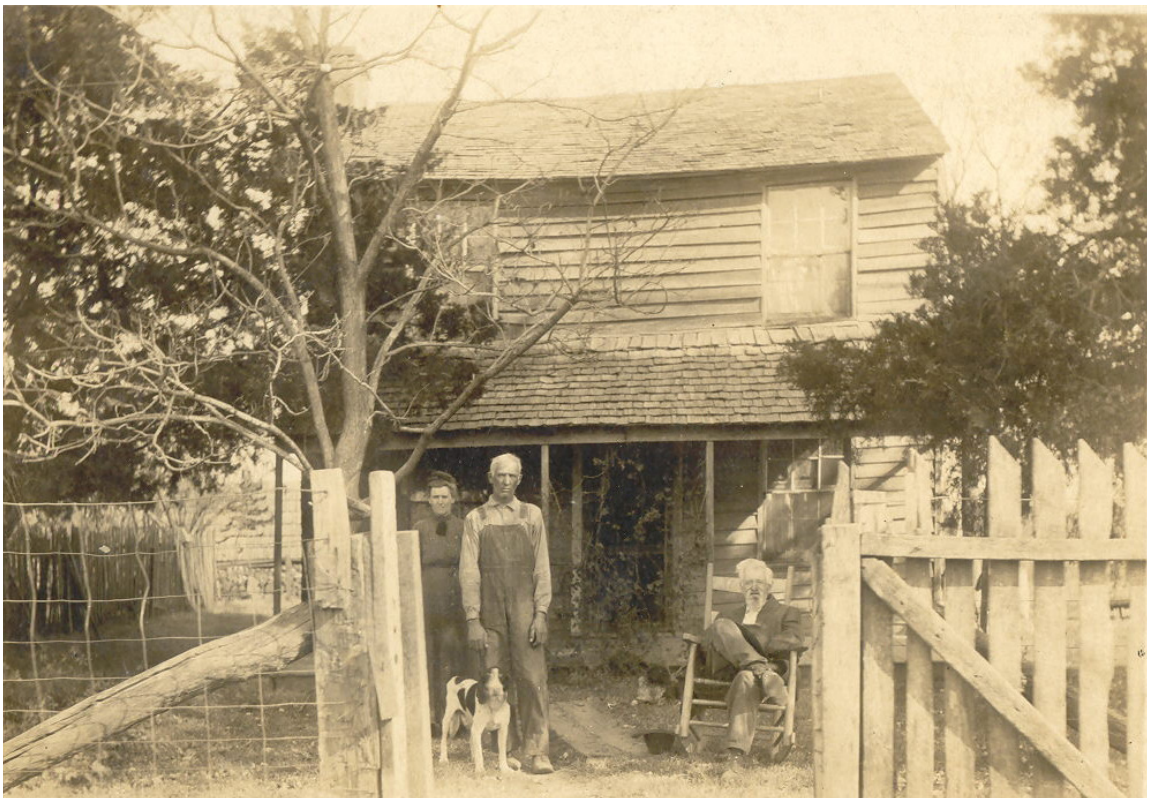


Figure 3-95. This photograph might be the Will Mayfield House (Lee House) in 1913, but it is unconfirmed. It is possibly another house that was in Leetown. Mr. and Mrs. Pierce Mayfield stand in front of the cabin covered in clapboard (Source: PERI).



Figure 3-96. The Will Mayfield House (Lee House) prior to demolition. The tree to the right of the house still stands (Source: PERI).

Buildings and Structures

Existing Condition

There are no extant buildings or structures within the Leetown Hamlet landscape character area.

One extant foundation was identified during the June 2013 field investigations. The brick foundation is west of the mown path known as Leetown Road, and to the north of where the path turns to the east. The foundation may be associated with the Will Mayfield House (Lee House), demolished by the NPS in 1963. Archeological investigations undertaken by Herrmann in 2005 identified anomalies that he attributed to the Will Mayfield House (Lee House). The extant foundation is in close proximity to Herrmann's anomalies.

Other foundations may exist including those of original structures or of later-built buildings. The tall grasses and overgrown vegetation obscures any physical remains.

Analysis

During the Battle of Pea Ridge, the buildings and structures of Leetown Hamlet were used as hospital buildings. According to historical accounts there were between ten and fifteen structures. Historic reports note a house attributed to John Lee, a Masonic Lodge, a general store and a mill house on nearby Winton Spring at the time of the battle.

Locals interviewed in 1964 / 1965 recalled the area as having three sites with buildings and structures in the 1890s. These included the Will Mayfield House noted as being built over the earlier John Lee House, a log cabin (the Alfred Hardy log home), and the 'Wix' Mayfield House located across Spring Branch Hollow.

An assessment of integrity for the building and structures for Leetown Hamlet is not possible as there are no standing structures.

The following describes the known buildings associated with Leetown Hamlet either during the period of significance or by the 1890s. With additional archeological investigations it is likely that the full extent of the town's buildings and structures can be identified.

Will Mayfield House (Lee House) and Outbuildings

This property was associated with Will Mayfield, and then Pierce Mayfield and his wife who lived in the house when the park was established. The house and outbuildings were razed by the NPS in May 1963 with the approval of then-superintendent John T. Willett.

The Will Mayfield house was a two-story structure with a barn to the west of the house, and a cistern and granary to the north. Connected to the house was a shed. According to Mrs. Pierce Mayfield, her husband's aunts had claimed that a portion of the house had belonged to John Lee and was extant during the Civil War. Shepard claimed that the chimney, front room and foundation were part of John Lee's house and that the dwelling or some part of it survived the Civil War battle. Other accounts note the building as being built c. 1840 by John W. Lee.[3.71]

Standwix 'Wix' Mayfield House and Outbuildings

According to John A. Shepard, the Standwix 'Wix' Mayfield house (on the site of the 1956 Pierce Mayfield's chicken houses) was extant in the 1890s and was located west of Spring Branch Hollow. The house was a two-story dog-trot cabin with white clapboard shingles and weatherboarding.[3.72]

3.71 Bearss. "Leetown," 88.
3.72 Bearss. "Leetown," 88-89. John A. Shepard was a local resident who grew up within a half-mile of Leetown. He



OLD MAYFIELD HOUSE--Constructed after the battle of Leetown, which destroyed almost all of the town, the old Mayfield house stood on the site of the village until recently, when it was torn down. It had been believed that a portion of the house was constructed of logs covered by weatherboarding, and that it might have been one of the original dwellings in the village at the time of the battle. But when workmen removed the boarding they found the house to be of frame construction, unlike pre-Civil War structures. Persons in this photograph have not been identified. (Photograph courtesy Scott's Museum)

Figure 3-97. The Standwix "Wix" Mayfield House (Source: PERI).



Figure 3-98. The Standwix "Wix" Mayfield House c. 1903 (Source: PERI).

The property included a barn south of the house on the ridge overlooking Spring Branch Hollow, and a granary about one-hundred yards north of the house. There was also a cistern.[3.73]

Mrs. Pierce Mayfield noted that she and her husband had lived in the 'Wix' Mayfield house before it burned, at which time they moved to the Will Mayfield house across the hollow. On the site of the 'Wix' Mayfield house, they built chicken houses.[3.74] The 'Wix' Mayfield house burned sometime after 1913. [3.75]

The Mayfield chicken houses were demolished by the NPS in 1963. Some traces of the homestead were recorded in 2004.[3.76]

This area was not reviewed during the June 2013 field investigations.

Alfred Hardy Log Home

The third structure extant in the 1890s, in the Leetown Hamlet area was a log cabin, located a quarter-mile south of the Will Mayfield house. The log cabin faced west and had a rear shed. The log cabin burned before 1900.[3.77]

Masonic Lodge

This foundation was not reviewed during the June 2013 field investigations.

The existence of a Masonic Lodge has been disputed by lack of physical evidence. Recent investigations have suggested that while the Masons owned land in Leetown Hamlet, there was likely never a Masonic Lodge built.

In 1857, Martha, George S. and Martha R. Lee sold a tract of land about one-half acre in size to the Pea Ridge Masonic Lodge No. 199. It was also unlikely that the population in and around Leetown Hamlet would have been large enough to support it.[3.78]

Leetown Hamlet

Contributing Non-Extant Structures or Foundation Remnants

- Will Mayfield House (Lee House) brick foundation remnant
- Barns; Chicken houses; Outbuildings associated with Will Mayfield House and 'Wix' Mayfield House
- Masonic Lodge

Non-Contributing Structures or Foundation Remnants

- 'Wix' Mayfield House
- Alfred Hardy log home

recalled that in his youth, in the 1890s, there had been three houses standing in Leetown: the Standwix "Wix" Mayfield home, the Will Mayfield house, and a log house in the quarter south of the Will Mayfield place (it burned before 1900).

3.73 Bearss. "Leetown," 88.
3.74 Bearss. "Leetown," 89-90.
3.75 Historic photograph, 1913," 89-90.
3.76 Herrmann. "Interpreting Leetown," XX.
3.77 Bearss. "Leetown," 88.
3.78 Herrmann. "Interpreting Leetown," 16.



Figure 3-99. Low wood rail fences (non-historic worm fences) define the general area of Leetown Hamlet (Source: MB 2012).

Small Scale Features

Existing Conditions and Analysis

Small scale features at Leetown Hamlet are primarily associated with interpreting the setting that existed at the time of the Battle of Pea Ridge. These features include worm fences, the fence at Leetown Cemetery and interpretive and regulatory signage. In addition, two wells are extant.

Worm Fence

Low wood rail fences, known in the park as worm fences, define the general extent of Leetown Hamlet. The fences are set on an alternating pattern that provides stability without setting a post and results in a slight zigzag line across the landscape. The fences are located to the west and south of the mown path depicting Leetown Road.

The worm fences are reconstructions of original fence types known to have existed at the time of the battle.[3.79] The fences were installed by park staff after extensive research that included review of Bearss and Weih's mapping, the 1899 Fayetteville quadrange and aerial photographs from the 1940s and 1960s in order to replicate the historic fencelines. These fences are in good condition.

The worm fences at Leetown are non-contributing features. They are compatible with the extents of the former village and assist in interpreting the setting of the 1862 landscape.

3.79 Interview with park staff, October 2013.

Cemetery Fence

The fence surrounding Leetown Cemetery is a remnant wood post and rail fence that was originally approximately three-feet in height.

It appears that this fence enclosed all four sides of the cemetery at one time. The fence is in poor condition. Several posts are missing and most rails have fallen or are rotted.

This fence was installed by the park staff, c. 1990s.

Investigations of the cemetery by Rex Wilson in 1965, indicate the presence of the cemetery but do not mention fencing.

Wells

Several wells or cisterns are known to exist within the Leetown Hamlet landscape character area. Two are known to be located between the open clearing of Leetown Hamlet and the Wix Mayfield house.

Further research is needed to determine their exact locations and whether they date to the time of the Civil War.

Leetown Hamlet

Potential Contributing Small Scale Features

- Two historic wells – concrete spring house foundation and stone spring.

Non-Contributing Small Scale Features

- Worm Fence
- Fence remnants at Leetown Cemetery



Figure 3-100. Several trees have been identified as being old enough to have been present during the battle. The large mature oak tree is within the Leetown Hamlet landscape character area, located just north of Old Leetown Road (Source: MB 2012).

Vegetation

Existing Condition

Vegetation within Leetown Hamlet includes forests of oak and hickory, and ornamental plantings associated with the non-extant settlement of Leetown Hamlet, 'Wix' Mayfield House site, and Leetown Cemetery.

Forest vegetation includes native stands of oak and hickory, accompanied by thick undergrowth. The forest surrounding Leetown Hamlet is primarily young, similar aged trees. The tree canopy is dense and relatively uniform. The edges of the forest are abrupt and frame the opening of the former settlement and create a contrast between open and enclosed spaces. [3.80]

Leetown Hamlet is generally a clearing of unmown tall grasses with a few mature trees, surrounded by forest and dense underbrush. The largest of the mature trees are oaks. A mown grass path, known as Leetown Road, is present. Ornamental vegetation remains in areas, including lilies and roses.

Leetown Cemetery is a small clearing of primarily unmown grasses, surrounded by dense forests of oaks and hickory. [3.81] Some vegetation is overgrown, including small shrubs and a medium-sized tree growing within the west edge of the cemetery.

Several trees have been identified as being old enough to have been present during the battle. One is within Leetown Hamlet, located just north of Old Leetown Road. This large mature oak tree has a trunk of approximately three to four-foot diameter. Other trees of the same or similar age likely exist within the landscape character area.

Analysis

During the period of significance, Leetown Hamlet would have been an open clearing, dotted by the town's buildings and structures, and some vegetation. Vegetation likely consisted of low grasses and plantings near structures with agricultural fields nearby. This setting would have been surrounded by an oak and hickory forest. [3.82]

The forest was a dry mesic woodland that transitioned to dry open woodland towards Leetown Battlefield. Dry open woodland contained ten to twenty trees per acre, and had an understory of native grasses. After years without fire, it was "woody country with a dense underbrush" according to soldier accounts. Leetown Battlefield would have been visible from Leetown Hamlet in the winter months. Today, there is no visual connection because the woods has become more dense.[3.83]

Through the 1940s, the area remained agricultural. Fields, along with trees and shrubbery associated with buildings and structures was the primary vegetation. By the 1960s, the vegetation had become more dense but a visual connection remained between the 'Wix' Mayfield House and the Will Mayfield House (Lee House) in Leetown Hamlet.

Extant mature trees, primarily oak, indicate that trees were either planted or allowed to grow between non-extant buildings. These mature trees and a few ornamental species were likely associated with the houses. The extant ornamental vegetation is likely remnant species planted by the Mayfields in the mid-20th century.

Historically, the vegetation of Leetown Cemetery would have been low mown grasses or forbs, and the area would have been kept clear of trees and shrubs. Today's vegetation is similar, however the extant vegetation is very overgrown. Small shrubs and one medium-sized tree encroach into the cemetery.

Leetown Hamlet

Contributing Vegetation

- Historic trees (primarily oaks)
- Irises, Daffodils, Narcissus (potential remnants from historic plantings)

3.80 Park staff, verbal communication during June 2013 field investigations.
3.81 VMP, 51.

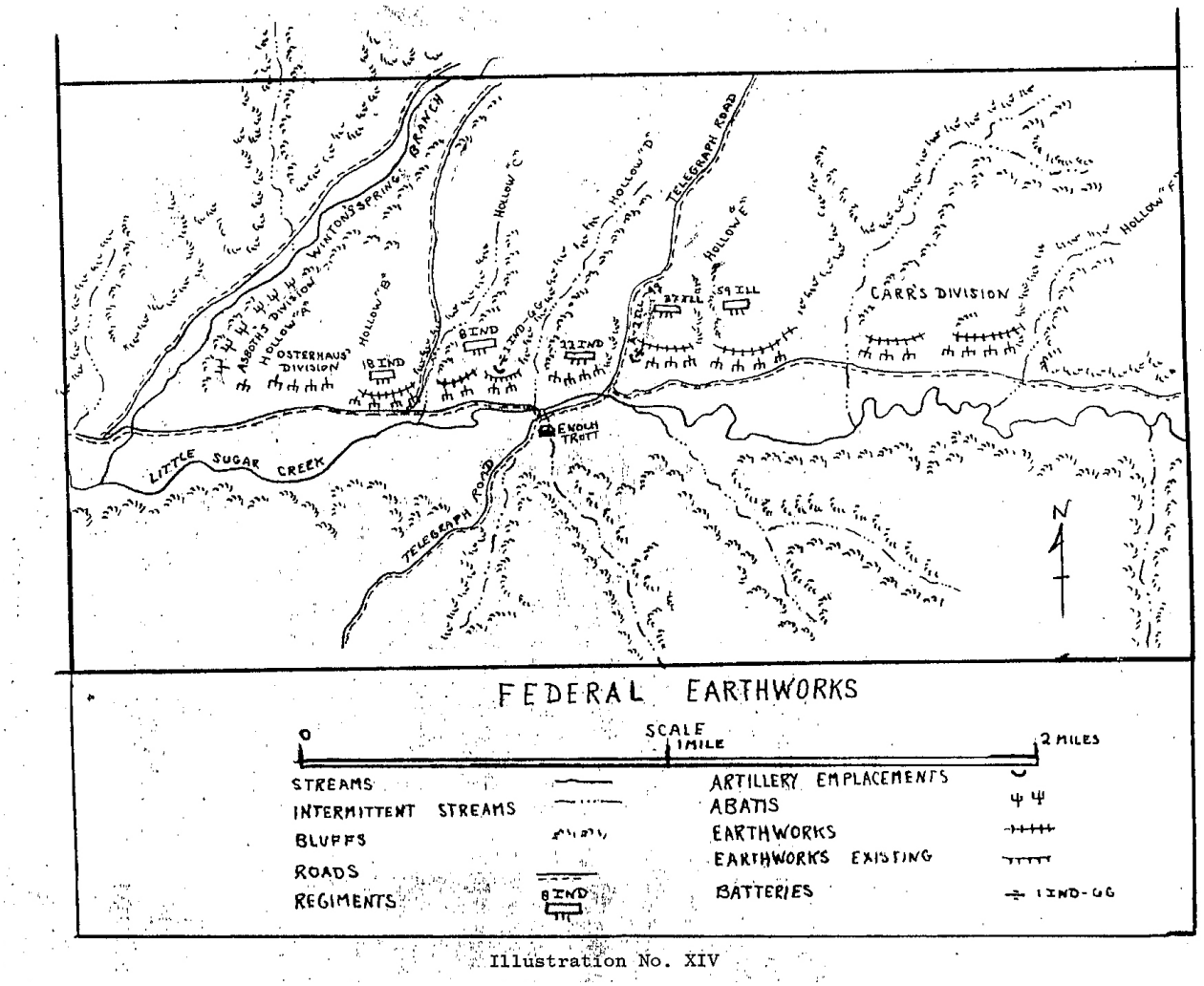


Figure 3-101. The Federal Trenches encompasses the area where, in the days just prior to the Battle of Pea Ridge, General Samuel E. Curtis fortified his position on the bluffs above Little Sugar Creek. The Union army hastily built earthen breastworks, cleared trees and underbrush, dug rifle-pits, and set up artillery emplacements in anticipation of an advance from the Confederate army from the south (Source: PERI).

Federal Trenches

This landscape character area encompasses the southern, discontiguous parcel of the park where extant earthwork fortifications remain from the Battle of Pea Ridge. These are the only known features built as part of the military battle. This area includes the parcel within the park boundaries, and two parcels on either side that were identified by the GMP/EIS as potential acquisitions due to their significance to the battle. The Existing Condition Plan, located at the end of this section, illustrates the area of the Federal Trenches and its current condition (Figure 3-117).

The Federal Trenches encompass the area where, in the days just prior to the Battle of Pea Ridge, General Samuel E. Curtis fortified his position on the bluffs above Little Sugar Creek. The Union army hastily built earthen breastworks, cleared trees and underbrush, dug rifle-pits and set up artillery emplacements in anticipation of an advance from the Confederate army from the south. The Confederates considered these preparations to be formidable, resulting in Van Dorn and his generals, McCulloch and McIntosh, to re-orient their advance to avoid the bluffs and the frontal attack. They instead marched ten miles to the north along the Bentonville Detour in an effort to turn Curtis' position and to interrupt his communication line with his supplies from Springfield and Rolla, Missouri.

According to a lieutenant in the 59th Illinois regiment under Colonel White, "Our retreat to (Little) Sugar Creek occurred on the 5th of March 1962. . .we went into a camp a safe distance back from the brow of the hill north of the stream. The first order was to build earthworks on this hillside and get the artillery into position as this slope faced the south and thus commanded the direct approach of the rebels coming from that direction. It was a most tedious and difficult

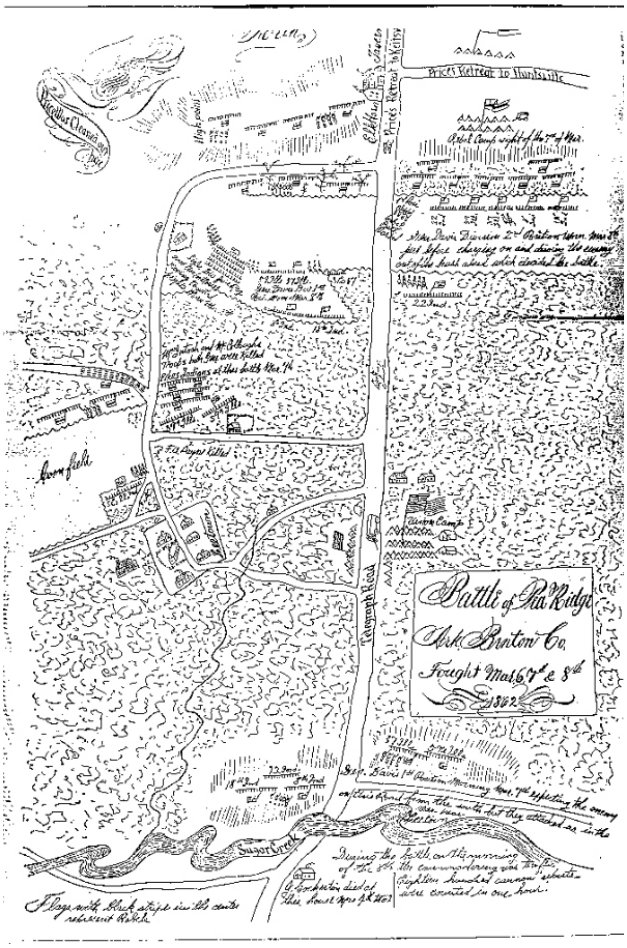


Figure 3-102. The Federal Trenches is the southern, discontiguous parcel of the park where extant earthwork fortifications remain from the Battle of Pea Ridge (Source: PERI).



Figure 3-103. The view to the valley of Little Sugar Creek was key to the Union army's strategy. From this point, they could see the advance of the Confederates (Source: MB 2013).



Figure 3-104. The lower area of the landscape character area is a broad open space (Source: MB 2013).

work. Up through a heavy underbrush over the rough uneven surface the men pulled the heavy guns by means of long ropes." The lieutenant described the urgency of the construction, "all night we worked and finished just at sunrise next morning, when we went to camp for rations and rest." [3-81]

General Curtis arrived at Little Sugar Creek on March 6, 1862, at two a.m. in the morning. He immediately ordered the Union troops to "fell trees and otherwise obstruct approaches to his positions." According to historian George W. Herr who chronicled the battle in 1890, "The valley of (Little) Sugar Creek is a long, narrow, irregular ravine. . .flanked by high projecting hills. On those hills the Third and Fourth Divisions. . .cut down great numbers of trees with which they obstructed approaches to the left. In fact, before the close of the 6th all approaches were pretty thoroughly blocked." [3-82]

Herr's descriptions of the hillside and the earthworks noted, "on the headlands of (Little) Sugar Creek eight breastworks of considerable extent were erected and a battery near the road crossing was completely shielded by an extensive earthwork erected by Company C..." [3-83]

Upon learning the Confederates had turned his position by advancing north, Curtis began moving troops from the newly built earthworks. They left their protected, fortified position and marched north to reinforce troops at Elkhorn Tavern and Leetown Battlefield. The constructed earthworks were never used for the purpose for which they were built. However, they were instrumental in causing Van Dorn to alter his attack.

3-81 Bearss, Leetown, Elkhorn Tavern Grounds, Federal Earthworks, and Tanyard, 23-24.
3-82 Bearss, Leetown, Elkhorn Tavern Grounds, Federal Earthworks, and Tanyard, 1956 – from George W. Herr, Episodes of the Civil War, Nine Campaigns in Nine States, 64.
3-83 Bearss, Leetown, Elkhorn Tavern Grounds, Federal Earthworks, and Tanyard, 66.

Spatial Organization

Existing Condition

The spatial organization of this landscape character area is derived from its natural features.

The bluffs above Little Sugar Creek form an undulating edge along the north side of the valley that are contrasted by the level valley of Little Sugar Creek far below. The valley is approximately a quarter-mile wide and rises very slightly towards the south where the valley transitions to agricultural fields. The dense woodlands along the hillsides of the bluffs reinforce the separation between the hill and valley.

Analysis

The spatial organization remains similar to that which existed during the period of significance and reflects the historic appearance as witnessed by the Union army.

When the Federal Trenches were built in 1862, the spatial orientation of the bluffs overlooking the valley was key to the Union army's strategy. From this position, the army built trenches to provide protection from the Confederates as well as a vantage point to witness their movements. Today, the separation of the bluffs and valley remains, and contributes to the historic character of the Federal Trenches.

Federal Trenches Contributing Spatial Organization

The aspects of spatial organization that contribute to the historic character of the Federal Trenches are:

- Relationship of bluffs above Little Sugar Creek to the valley below.



Figure 3-105. This 1960s aerial photograph shows the bluffs above Little Sugar Creek that were mined for the railroad (east of the parking lot). The bluffs that the trenches were built on are located to the west of the parking lot, in the upper left of the photo (Source: PERI).

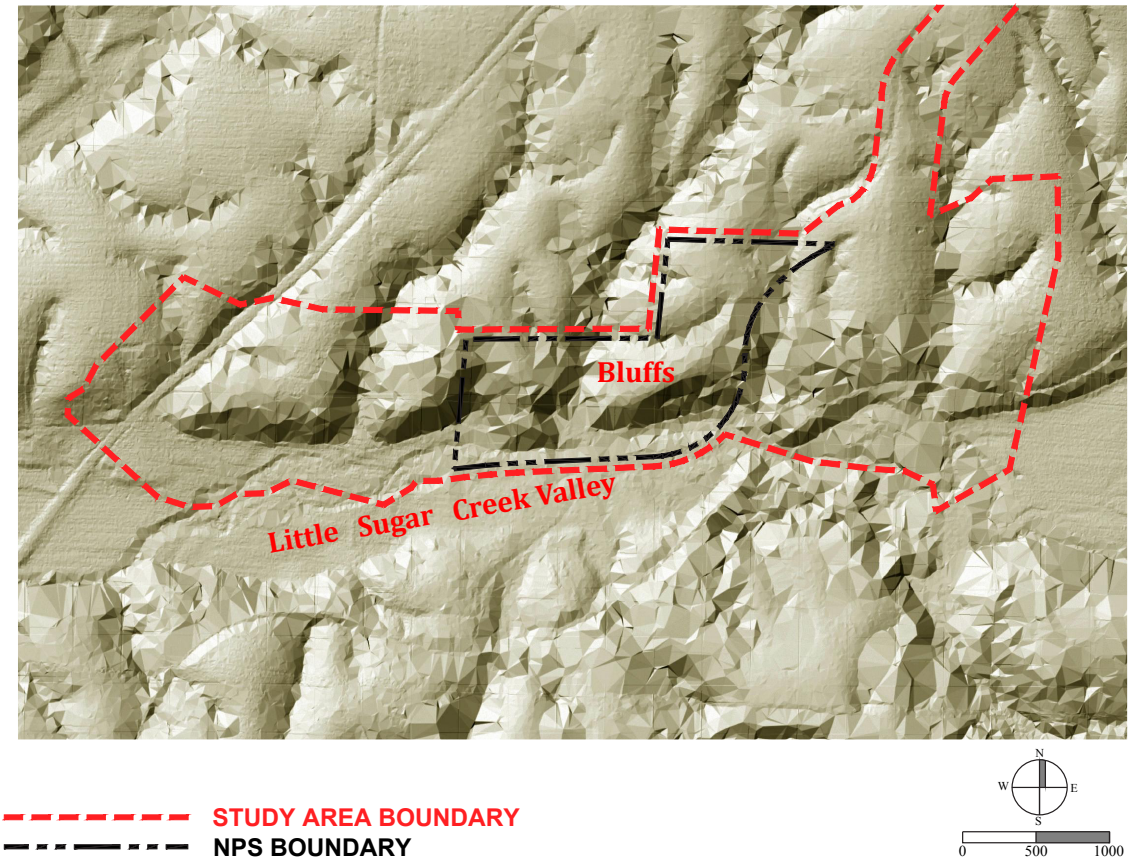


Figure 3-106. The topography and landform of the Federal Trenches remains very similar to that which existed at the time of the battle (Source: MB 2013).

Topography and Landform

Existing Condition

The earthen breastworks built by the Union troops as a protected, fortified position are located on the top of the bluffs overlooking Little Sugar Creek. The bluffs are a series of landforms that rise eighty to one hundred-twenty feet above the valley floor, extend in an east/west direction, and are separated by narrow hollows and intermittent streams.

Below and to the south of the bluffs is a flat, narrow valley that includes Little Sugar Creek. On the south side of the creek, the topography rises more gently to form the south side of the valley. The park boundaries extend to the north bank of Little Sugar Creek. Within the park, on the north side of Old Wire Road, is a broad level area that extends from the parking area towards the north. The open area is one of the hollows in the series of bluffs. The broad level area extends for approximately three hundred feet. At its mid-point, a path ascends the steep hillside to reach the trenches on top of the bluff.

Analysis

In 1862, the Union army chose the bluffs overlooking Little Sugar Creek for the topographic advantage they provided. The sight lines afforded by the high bluffs provided an overlook across the valley. By building trenches on top of the bluffs and by felling trees on the steep slopes, the Union army was able to create a fortified position that offered protection from anticipated rebel fire. The elevation, high above the surrounding valley to the south also provided a vantage point to witness the approach of the Confederate troops.

Today, the topography and landform of the Federal Trenches landscape character area remains very similar to that which existed at the time of the Battle of Pea Ridge.

The narrow valley immediately below the bluffs and the small hollow contribute to the historic character emphasizing for the visitor the topographic change and strategic importance of constructing trenches on top of the bluff.

Federal Trenches

Contributing Topography and Landform

The topography and landform features that contribute to the historic character of the Federal Trenches are:

- High bluffs overlooking Little Sugar Creek and Valley
- Broad, open level area
- Valley of Little Sugar Creek



Figure 3-107. The Federal Trenches parking area provides space for eight cars with no accommodation for RV/bus parking. It is accessed from Little Sugar Creek Road (Source: MB 2013).



Figure 3-108. An asphalt trail extends to the top of the bluff. It is located north of, and parallel to, the trench (Source: MB 2013).

Circulation

Existing Condition

The existing circulation within the Federal Trenches landscape character area consists of vehicular routes to the area and a parking area, and park pedestrian routes. The roads are Benton County roads.

Old Wire Road (formerly Telegraph Road and Little Sugar Creek Road) is the vehicular route to the Federal Trenches landscape character area. Old Wire Road is outside of the park boundary and extends roughly north/south. It is a gravel/dirt road about twenty-feet in width. The road is in fair to good condition.

Little Sugar Creek Road is the southern vehicular route that extends east/west following Little Sugar Creek. It is a narrow, asphalt-paved two-lane road in good condition.

The parking area and pedestrian trail were built in the 1960s, to provide visitor access to the trenches. The parking area includes eight spaces for cars with no accommodation for bus/ RV parking. It is located just off Old Wire Road, and is in good condition.

A pedestrian trail, approximately six-feet in width, extends from the parking area to the north where it ascends a steep hillside and hollow to the top of the bluff. It follows the north edge of the trench, and forms a loop around the top of the hill. Although the trail was originally asphalt surfaced, the paving is cracked and worn in places, and is completely disintegrated in others. The trail is in very poor condition.



Figure 3-109. The asphalt path extends from the parking area up to the top of the bluffs. The path is in poor condition (Source: MB 2013).

Analysis

Circulation within the Federal Trenches differs from that which existed at the time of the battle in two ways: the alignment of Old Wire Road/Telegraph Road and the approach to the bluffs. The construction of the nearby railroad likely altered the alignment of Old Wire Road / Telegraph Road.

In 1862, Old Wire Road / Telegraph Road followed the valley of Little Sugar Creek, but extended to the north in an alignment further to the east than today's route. Through the park, the road extended from the Federal Trenches to the tanyard. It was used by the Union army as early as March 5th, 1862, when troops were entrenched above Little Sugar Creek and General Curtis was encamped at Pratt's Store, north of the Federal Trenches along the Telegraph Road. It is likely the road was used by the Union for communication and transportation between these two points.



Figure 3-110. The earthen breastwork and trench is the only known structure that remains within the park that was built for use in the battle. Their presence confirms the location of Curtis' stand along Little Sugar Creek and marks the turning point of the battle (Source: MB 2013).



Figure 3-111. The topography of the trench includes the hastily built earthen breastworks of the Union army on the south-facing slope (Source: MB 2013).

After the battle, Telegraph Road was used by the local community and appears on 1900s maps of the area. At some undetermined date, the route was altered near the Federal Trenches. It is possible that this was altered with the construction of the St. Louis and San Francisco railroad in the 1880s, that cut across the Telegraph Road. Rather than build a trestle to cross it, the road was re-routed. The historic road trace remains, and is located less than a quarter-mile east of its present location.

The eastern section of the Telegraph Road and was not in existence during the period of significance. It is not a contributing feature. The road trace of the original Old Wire Road / Telegraph Road is a contributing feature. The southern section of Old Wire Road follows its original alignment. This segment is a contributing feature. The alignment of Little Sugar Creek Road is a contributing feature.

In building the earthen breastworks and clearing the hillsides for fortification, the Union army would have approached the trenches from the top of the bluffs (from the north) unlike visitors today who approach from the south and hike up the bluff. The trail that leads from the parking area to the top of the bluffs was built by the NPS in the 1960s. It provides access to the Federal Trenches, but is not a contributing feature as it was not present during the period of significance.

Federal Trenches
Contributing Circulation

- Little Sugar Creek Road (alignment)
- Road traces of Telegraph Road

Non-Contributing Circulation

- Telegraph Road / Old Wire Road segment

Structures

Existing Condition

The only structures within the Federal Trenches landscape character area are the trenches associated with the earthen breastworks. These features were hastily built by the Union army in February and early March 1862, in the days just before the Battle of Pea Ridge.

One known linear trench occurs within the park boundaries. It is located on top of the bluff just northwest of the parking area. This structure is a shallow trench with earth ramparts that is several hundred feet long but just a few feet deep and wide. Some portions of the trench are fairly deep (up to three-feet deep). Other portions are very shallow including those that disappear into the hillside at the ends of the trench.

The shallow trench with earthen ramparts is not readily discernible to the untrained eye, and the full extent of the earthwork is difficult to see. Overgrown vegetation including undergrowth, trees and shrubbery make the trench even more difficult to see. The form of the trench appears to be in good condition. Some areas have filled with dirt and debris, further obscuring the structure.

Although the trench is the most legible military built feature, it is likely that the entire top of the bluff was manipulated by the Union army as they built their protective fortification.

Analysis

The earthen breastwork and trench is the only known structure within the park that was built for use in the battle. The presence of the trench confirms the location of Curtis' stand along Little Sugar Creek. The Union troops built other trenches on the bluffs east and west of this trench. It is also likely there are other earthworks, including artillery



Figure 3-112. The earthen trench in the 1940s (Source: PERI).

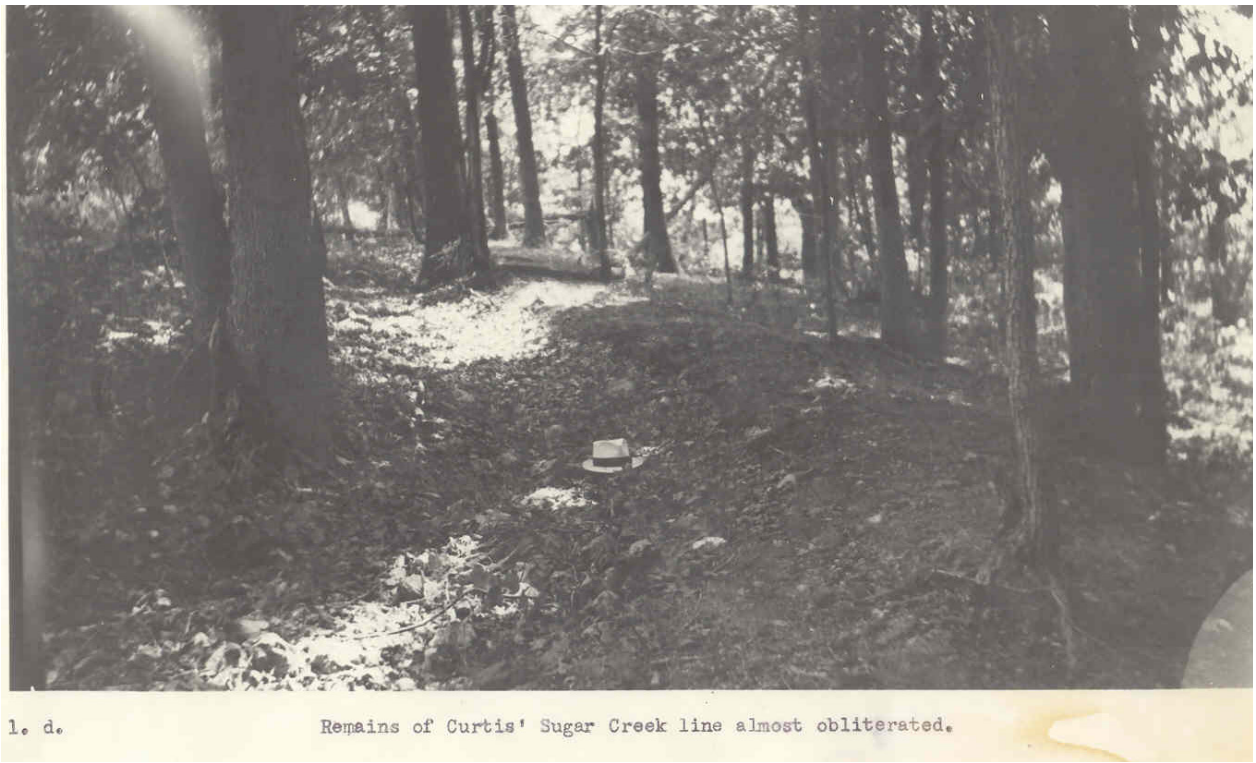


Figure 3-113. The earthen trench in the 1940s (Source: PERI).

emplacements, that were dug in late February and early March 1862.

The fortifications built on the bluffs above Little Sugar Creek were never used for their intended purpose. However, their formidable presence greatly influenced the battle in location and in outcome. General Samuel Curtis originally planned to force the Confederate Army to attack his entrenched army at their fortification perched above Little Sugar Creek. When General Van Dorn learned from his scouts of the strength of the fortification and its position, he determined that rather than attack the Union straight on, he would march his troops through the night around the Union army and attack them from the rear. Consequently, the Union troops had to abandon their trenches and the fortifications were never part of the battle.

Since the period of significance, the extant trench has eroded in some locations and has filled with debris and dirt in others, which has obscured its form. When the shallow trenches and earthen breastworks were built they were free of vegetation. Union troops modified hillside vegetation around the breastworks, and trenches were cleared of vegetation. Trees were felled to provide obstacles to attacking Confederate troops and to provide a clear line of fire for the artillery.

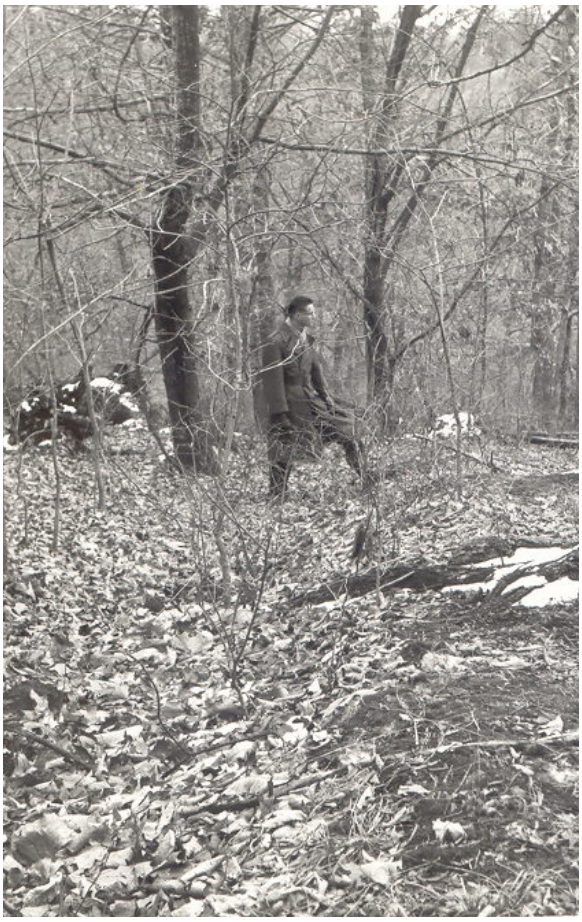


Figure 3-114. The earthen trench in the 1940s (Source: PERI).

The breastwork and trench along the top of the bluffs built by the Union army are contributing features. As the only built features remaining from the Battle of Pea Ridge, these features are key components for understanding how and where the battle was eventually fought.

The full extent of the earthen structures built by the Union army for General Curtis' fortification is not known. Further research and field investigations could reveal more topographic manipulations that were part of the construction as well as more areas on the tops of the bluffs where earthen structures were built.

Federal Trenches

Contributing Structures

- Earthen breastwork and trench
- Other earthen breastworks and trench (unknown number/extents, might extend beyond NPS boundary)



Figure 3-115. The trench is relatively clear of woody plants due to periodic mowing. Some tree thinning has occurred near the trenches, and tree stumps have been left by the NPS to indicate to visitors that this area was historically cleared (Source: MB 2013).



Figure 3-116. The broad level area between the parking and hillside is mown grass and groundcovers (Source: MB 2013).

Vegetation

Existing Condition

The vegetation of the Federal Trenches is primarily very dense trees and undergrowth on the hillsides and tops of the bluffs above Little Sugar Creek. Within the tree cover is deadfall and other downed trees.

The trench is relatively clear of woody plants. Some tree thinning has occurred near the trench, and trees that have the potential to damage the trench have been removed periodically. Tree stumps have been left by the park to indicate that this area was historically cleared. The broad level area between the parking area and hillside is mown grass and groundcovers. Mature trees in the this area create a park-like appearance.

Analysis

During the winter of 1862, the Union army modified the vegetation of the bluffs north of Little Sugar Creek. Trees were felled and undergrowth removed for a clear line of sight to the valley below, and for use in building 'obstructive works' using the fallen trees to obstruct all approaches.[3-84]

The fallen timber allowed the Union troops to see the approach of the Confederates to the south and their actions in the valley, and provided a clear field of fire for the artillery.

Trees likely remained on the hillsides behind (to the north) of the trenches, while undergrowth would have been removed in order to facilitate the army's operations. The trees on the southern hillsides of the bluffs were cut down in "great numbers. . .with which they obstructed approaches to the left."[3-85]

The earthworks were never used for their intended purpose. Since the original construction, overgrown dense vegetation has obscured the view to the south. The vegetation covers evidence of breastworks or other topographic manipulations that were likely part of the 1862 construction.

The age of the extant trees indicate that the bluffs were probably logged for timber sometime in the early 20th century.

After the NPS acquired the property in the 1950s, the trench and surrounding area were cleared of woody vegetation and maintained as mown grass.

The integrity of the vegetation is diminished as the extant vegetation does not provide an accurate appearance of the fortification and its lines of sight during the period of significance. This can be remedied through vegetation management.

Federal Trenches

Contributing Vegetation

- Vegetation associated with trenches and earthen ramparts
- Hillside vegetation

3-84 Bearss, Leetown, Elkhorn Tavern Grounds, Federal Earthworks, and Tanyard, 1956 – from Warfare Along the Mississippi, The Letters of Lieutenant-Colonel George E. Currie, Edited by Norman E. Clarke, Sr., Mount Pleasant, 1961. 23-24.
3-85 Ibid.

Legend

- PARK BOUNDARY
- STUDY AREA
- ROAD / HIGHWAY
- HISTORIC ROAD
- PARK ROAD
- TOPOGRAPHY
- PARK TRAIL
- PARK FENCE
- TRENCH REMNANTS
- POTENTIAL TRENCH REMNANTS
- STREAM/DRAINAGE
- RAILROAD
- WOODLANDS
- CANNON/ BATTERIES

To Pea Ridge NMP

To Pea Ridge NMP

Old Wire Road

62

PARKING

Little Sugar Creek Road

Little Sugar Creek

Little Sugar Creek

Old Wire Road

To Dunagins Farm

Mapping Sources: Peri GIS Database; 1899 Fayetteville Quadrangle; Aerial Photos 1940s, 1960s; Weih 2006; Herrmann 2005

N W E S

0 500

PERI 409 125965

Figure 3-117.

AUGUST 2014	TITLE OF PROJECT CULTURAL LANDSCAPE REPORT AND ENVIRONMENTAL ASSESSMENT
UNITED STATES DEPARTMENT OF THE INTERIOR PEA RIDGE NATIONAL MILITARY PARK	TITLE OF DRAWING EXISTING CONDITION - FEDERAL TRENCHES
	NAME OF PARK PEA RIDGE NATIONAL MILITARY PARK
	REGION: MIDWEST · COUNTY: BENTON · STATE: ARKANSAS

Elkhorn Tavern / Williams Hollow

The Elkhorn Tavern / Williams Hollow landscape character area consists of the northern portion of the study area. It includes Williams Hollow, Cross Timber Hollow, Telegraph Road, the tanyard, Elkhorn Tavern and its immediate surroundings, the Clemens' House site and fields, and Huntsville Road.

The natural characteristics of this area contributed to the outcome of the two-day battle. These characteristics include the steep slopes and outcroppings on Elkhorn Mountain and the undulating terrain and hollows of Cross Timber Hollow and Williams Hollow. These landforms are contrasted by the open fields on the plateau where Elkhorn Tavern is situated.

The width and condition of the 1862 roads slowed Van Dorn's Confederate troops along their march forward on the Bentonville Detour and along Telegraph Road in Cross Timber Hollow on March 6. The buildings, structures and fields of Elkhorn Tavern played a pivotal role as they were alternately held by the two armies. First occupied by the Union army, the area was captured by the Confederates by the end of the day on March 7, 1862. The area was recaptured the following day as a Union stronghold when Union troops claimed victory.

This section describes and evaluates the existing landscape conditions of the Elkhorn Tavern / Williams Hollow landscape character area. The existing condition plan for the landscape character area is located at the end of this section (Figure 3-154) followed by an the existing condition plan for the immediate area of Elkhorn Tavern (Figure 3-155.).

The landscape characteristics are Spatial Organization, Circulation, Topography and Landform, Buildings and Structures, Small Scale Features, and Vegetation.



Figure 3-118. Elkhorn Tavern, 2013 (Source: MB 2013).



Figure 3-119. Elkhorn Tavern and its immediate surroundings consist of an open clearing of small fields defined by fences. The building is towards the north edge of the clearing (Source: MB 2013).



Figure 3-120. The Clemens' House site and field is a smaller clearing, visually and spatially separated from Elkhorn Tavern by densely forested woodlands (Source: MB 2013).

Spatial Organization

Existing Condition

This landscape character area has three distinct spatial areas—Elkhorn Tavern and its immediate surroundings, Clemens' House site and fields, and Telegraph Road within Williams Hollow. Natural topography and landform along with streams, hollows and vegetation create the spaces of this landscape character area. A building, fences and orchard assist in defining the spatial arrangement of the Elkhorn Tavern area. Fences assist in defining the Clemens' House site and fields.

Immediately surrounding Elkhorn Tavern are open clearings of smaller fields defined by fences with the building set near the northwest edge of the space. Northwest of the building is the dense forest vegetation and steep topography of Elkhorn Mountain that defines the north and west edges of the space. Between the building and hillside is a contemporary orchard of small fruit trees. Fields occur to the south and southwest. Extending from the center of the building to the east is the mown path that indicates Huntsville Road. Another mown path to the south of the building indicates the alignment and linear space of Telegraph Road.

The Clemens' House site and field are a smaller clearing, visually and spatially separated from Elkhorn Tavern by densely forested woodlands. The two spaces are connected by the mown path of Huntsville Road. The Clemens' House site is a relatively level open field edged by a fence on two sides, and by dense woodlands on the west, north and east. On the north, the space is bounded by the forest and Williams Hollow.

The tanyard is a small clearing located approximately three-quarters of a mile to the northeast of Elkhorn Tavern along Telegraph Road. The clearing is set within the steeply descending topography and narrow ravine of Cross Timber Hollow. Across Broad Ridge to the east is Williams Hollow, defined by Narrow Ridge on its eastern edge. The space is enclosed by the steep topography of the hollow on the east and west sides.

Analysis

The original spaces of the Elkhorn Tavern / Williams Hollow landscape character area have changed since the time of battle. This is primarily due to the loss of buildings and structures and the growth of forested vegetation into historically open fields. While this has somewhat diminished the spatial organization, the present-day condition of open fields surrounded by forest remains similar to what existed during the period of significance.

The natural topography and landform, along with the streams and hollows that defined the original spaces remain very much as they were in the 1860s.

Vegetation has changed significantly from the time of the battle. Growth and encroachment of forest vegetation into previously open fields has diminished the historic setting. This is particularly obvious at the tanyard where the original space is barely legible. The woodlands and forests were much less dense at the time of the battle.

At Elkhorn Tavern, the spatial arrangement during the battle was defined by man-made buildings and structures. The historic setting included the building, a barn, carriage house and several outbuildings, an orchard and fields set on the relatively level plateau at the base of Elkhorn Mountain. This area was described at the time of the battle as consisting of approximately ten to twenty acres.[3.86]

3.86 Bearss, Leetown, Elkhorn Tavern Grounds, Federal Earthworks, and tanyard as of March 1862," p.54.



Figure 3-121. The tanyard is a small clearing, located approximately ¾ mile to the northeast of Elkhorn Tavern along Telegraph Road. The clearing is set within the steeply descending topography and narrow ravine of Cross Timber Hollow (Source: MB 2013).



Figure 3-122. The Tour Road and parking area at the Elkhorn Tavern disrupts the spatial organization of the historic setting. The road crosses what was historically an open field (Source: MB 2013).

The relationship of Elkhorn Tavern to the fields and adjacent topography and landform has remained similar to the period of significance. The overall spatial arrangement between open field and woodlands, and relationship to adjacent topography remains.

The existing open areas of low grasses defined by fences at Elkhorn Tavern generally reflects the arrangement of fields near the building. However, the field and pastures of the historic setting would have been much larger and more expansive.

Elkhorn Tavern was historically defined by the convergence of two roads near the building's southwest corner: Telegraph Road and Huntsville Road. These are now mown paths. The Tour Road was built in close proximity to the building and these roads, greatly diminishing the Elkhorn Tavern setting as it bisected the historically open fields.

The clearing to the west of the building holds two commemorative monuments. The space was filled with trees and shrubs as late as the 1970s, in an area planted with grasses. It is likely that this area was open pasture/fields during the period of significance as it was the general location of the Elkhorn Tavern barn and stable. The loss of the historically open setting and associated outbuildings, including the blacksmith shop, has diminished the spatial organization.

The spatial arrangement of Clemens' House site and field remain similar to that which existed during the period of significance. The loss of the Clemens' buildings and structures (outbuildings and a barn) has diminished the spatial arrangement. The delineation of open fields edged by dense forest assists in presenting the historic spatial organization. The relationship between Clemens' Field and the steep topography to the north remains as it was during the period of significance.
The tanyard is spatially very similar to its



Figure 3-123. The smaller Clemens' Field (Source: MB 2013).

appearance during the period of significance, although it is difficult to discern the space due to overgrown vegetation. Historically, the tanyard had a structure that would have served as organizing element. [3.87] It is unknown when the structure was removed. The tanyard is now covered with tall grasses and trees. The historic clearing was likely larger and better defined than it is today. The relationship of the tanyard to the stream, which was important for the operations of tanning hides, remains the same as during the period of significance. The relationship of the tanyard to Williams Hollow and Telegraph Road remains the same as existed historically.

The spatial organization contributes to the historic character of the cultural landscape. The natural topography and landform, streams and hollows, and vegetation create the organizing spaces.

Elkhorn Tavern / Williams Hollow Contributing Spatial Organization

The features that assist in this include the distinct areas of the Elkhorn Tavern (the buildings, orchard and fields, and monuments), Clemens' House site and fields, Williams Hollow, Broad and Narrow ridges, and forested woodlands that define the open spaces of fields and pastures.

3.87 Bearss, Leetown, Elkhorn, etc., p. 6.

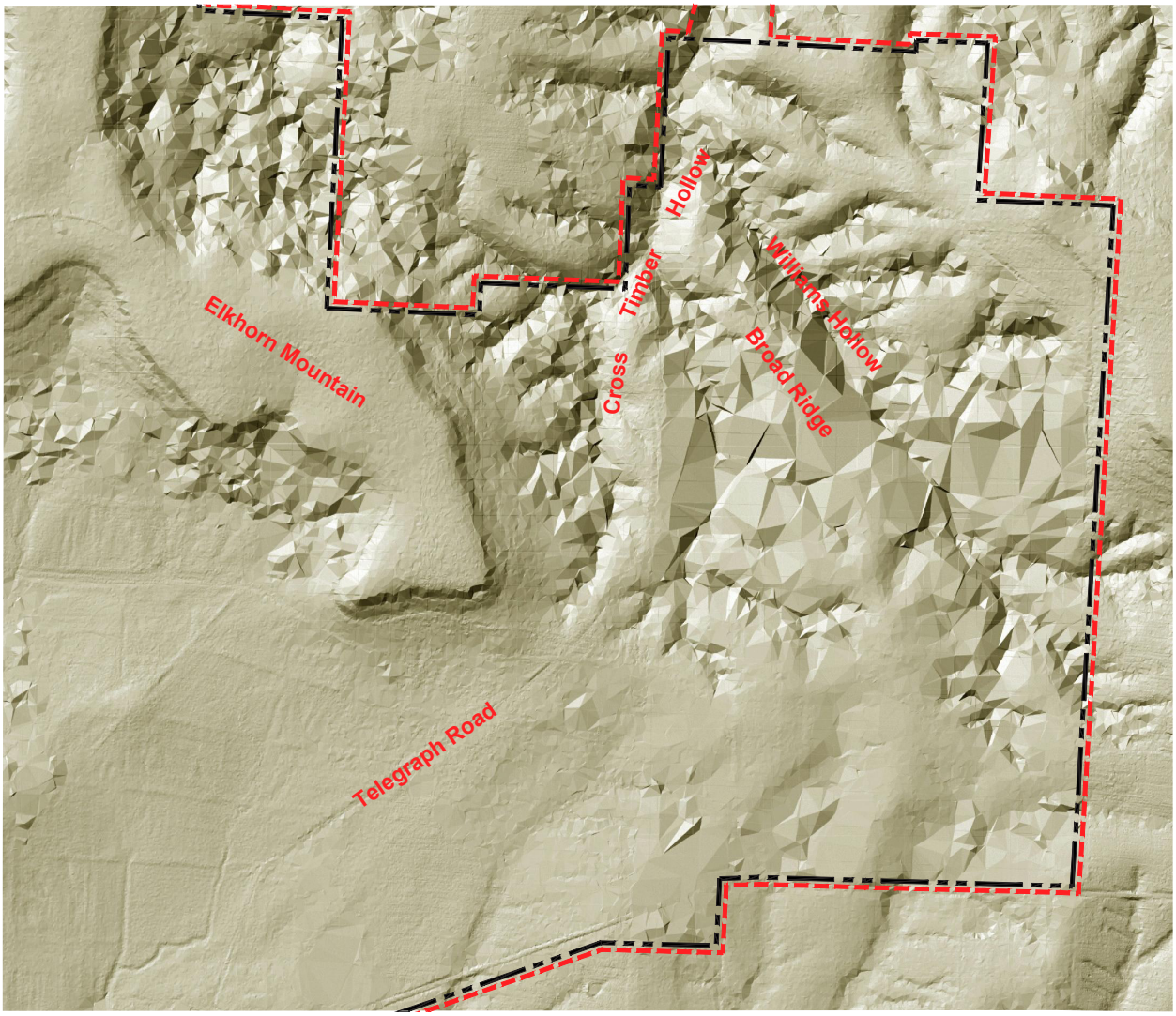


Figure 3-124. The southern and eastern edge of Elkhorn Mountain and steep undulating terrain of the hollows to the east, Cross Timber Hollow and Williams Hollow, define the topography of the landscape character area (Source: MB 2013).

Topography and Landform

Existing Condition

The topography and landform of the Elkhorn Tavern landscape character area is dominated by Elkhorn Mountain and the hollows that plunge north of the tavern. The southern and eastern edge of Elkhorn Mountain and steep undulating terrain of the hollows to the east, Cross Timber Hollow and Williams Hollow, define the topography of the landscape character area.

The Elkhorn Tavern and Clemens' House site and fields are situated on a level plateau between the rise of Elkhorn Mountain and the hollows to the north—Williams Hollow and Cross Timber Hollow. The hollows are separated by Broad Ridge and Narrow Ridge.

Clemens' Field is a fairly level space with a small rise in the middle, obscuring one edge of the field from the other. The rise was important during the battle. It impaired the line of sight for both sides as they moved across the landscape.

Analysis

The original topography is the same as what existed historically. The steep topography of Williams and Cross Timber hollows placed the Confederate Army at a disadvantage during the battle on March 7, since they had to fight their way uphill.

The topography associated with the tanyard, located in a small narrow clearing within Cross Timber Hollow approximately three quarters of mile from Elkhorn Tavern along Telegraph Road, remains similar to that which existed historically.[3.88] From the tanyard, the ascent up Telegraph Road to the Elkhorn Tavern is steep and narrow and very similar to the historic condition. This topography reinforces the separation between the two areas.

Elkhorn Tavern / Williams Hollow

Contributing Topography and Landform

The aspects of topography and landform that contribute to the historic character are:

- Elkhorn Mountain
- Narrow Ridge
- Broad Ridge
- Williams Hollow
- the small rise in the center of Clemens' Field

3.88 Bearss, Leetown, Elkhorn, etc., 4.



Figure 3-125. The Tour Road extends westward from Elkhorn Tavern towards the visitor center as a one-way route. Portions of the road, east of Elkhorn Tavern, disrupt the original Telegraph Road alignment (Source: MB 2013).



Figure 3-126. Telegraph Road, just east of the Elkhorn Tavern. The route is no longer used in this location and is maintained as mown grass (Source: MB 2013).

Circulation

Existing Condition

The existing circulation of this landscape character area consists of routes that accommodate visitor access including the Tour Road, a parking area, contemporary paths, and mown paths that follow historic road alignments. The historic routes include Telegraph Road and Huntsville Road.

Tour Road

The Tour Road connects to this landscape character area just west of Elkhorn Tavern. It then extends to the east. After a sharp turn to the southwest it follows the original route of Telegraph Road towards the visitor center. The asphalt road is one-way in this location. The parking area is just off the road and includes eight spaces for cars and two spaces for RV/buses. The road includes culverts and a pedestrian crossing that provide a route from Elkhorn Tavern to the two commemorative monuments, located southwest of the road.

Telegraph Road

Telegraph Road is a historic road alignment extending north/south in front (southeast) of the Elkhorn Tavern. From the building it extends to the northeast down Cross Timber Hollow to the tanyard and the hospital site. It ends at the park's north boundary.

At Elkhorn Tavern, Telegraph Road is a mown path, lined by fences. Just beyond, it becomes a narrow worn two-rut road and then a rocky road trace as it enters Cross Timber Hollow. Southwest of Elkhorn Tavern, the Tour Road overlaps the historic alignment of Telegraph Road. In this location, the road is one-way and surfaced with asphalt.

Telegraph Road is in poor to good condition.



Figure 3-127. The flagstone walkway from the parking area to the Elkhorn Tavern (Source: MB 2013).

Contemporary Paths

A narrow pedestrian path connects the parking area along the Tour Road with the entrance to Elkhorn Tavern. The flagstone path is approximately four-feet wide and widens near the parking area to provide space for seating. The path is in good condition.

A concrete path connects the parking area associated with the Tour Road with the two commemorative monuments south of the road. The path is approximately three-feet wide. It splits into a v-shape to reach each monument, where it broadens to form a circular concrete pad around each structure.

The path is in good condition.



Figure 3-128. In the 1960s, the Tour Road and parking area were built to the west of Elkhorn Tavern. Telegraph Road extends east/west in front of (southeast) of the building and Huntsville Road extends east. The road trace of Old Highway 72 is visible in this aerial photograph. Today it is no longer evident (Source: PERI).



Figure 3-129. Telegraph Road near the tanyard (Source: MB 2013).

Huntsville Road

This route is approximately twelve-feet in width and extends southeast from its intersection with Telegraph Road at Elkhorn Tavern to the park's east property line.

Huntsville Road is a grass-covered road trace that provides a pedestrian path from Elkhorn Tavern to Clemens' House and field. The road is in fair/good condition.

Alvin Seamster Road

This road traverses the far northeast corner of Pea Ridge National Military Park and connects Huntsville Road and Telegraph Roads.

Analysis

Many of the circulation patterns in this landscape character area follow historic routes that existed at the time of the battle.

Tour Road

Since its construction in 1963, by the NPS, the Tour Road has remained in the same alignment. Portions of the road near the Elkhorn Tavern were built on top of Telegraph Road, to the southeast of the tavern. The Tour Road provides necessary vehicular access to Elkhorn Tavern; however the Tour Road and parking area diminish the integrity of the historic setting.

The Tour Road and parking area are non-contributing features as they were not present at the time of the battle.

The route of the Tour Road and location of the parking area are under consideration for removal and realignment as part of the relocation of U.S. Highway 62.

Telegraph Road

Telegraph Road was originally built in 1835 as the Springfield, Missouri to Fayetteville, Arkansas Road. It became a major route through the area. Between 1837 and 1839 the road served as the northern route for the Trail of Tears. In 1858, Telegraph Road became the route for the Butterfield Overland Stage. One of the stops was the Elkhorn Tavern, where travelers could sleep, get something to eat, and rest their horses.

Telegraph Road played a major role in the Battle of Pea Ridge. The road was used by the Union for communication between Curtis' headquarters at Pratt's store and the army's supplies, which were kept at the Elkhorn Tavern and barn. The road's north end was used by the Confederacy on March 7 and 8, 1862. Van Dorn and Price reached Telegraph Road via the Bentonville Detour early in the morning of March 7, 1862, and then fought their way up Cross Timber Hollow along Telegraph Road.

Telegraph Road appears on 1900s maps of the area. In the 1940s, portions of the road were paved. Highway 72 was built perpendicular to Telegraph Road. During the construction of the park portions of the Tour Road were built on top of Telegraph Road, southeast of Elkhorn Tavern.

Telegraph Road generally remains in the same alignment as during the period of significance. However, the exact route is difficult to discern in the area of Elkhorn Tavern. This area has changed in contemporary times due to the removal of some roads and addition others. North of Elkhorn Tavern, the original route remains. Although the road is eroded in some locations, it remains very similar to what existed historically.

Telegraph Road is a contributing feature as it was present during the period of significance and played a pivotal role in the battle.







Figure 3-130. Present-day Huntsville Road is a narrow two-track route lined by worm fences, top (Source: MB 2013). Huntsville Road, c. 1960s, center. Huntsville Road, c. 1940s, bottom (Source: PERI).

Contemporary Paths

The flagstone path to Elkhorn Tavern is a non-contributing feature. It was designed and built as part of the park's Mission 66 program in 1963.

The concrete path that connects Elkhorn Tavern to the Civil War monuments and surrounds the monuments was built in the 1980s. It is a non-contributing feature.

Huntsville Road

The construction of Huntsville Road dates to c. 1830 to 1840. During the battle, the road was used by the Confederates to transport troops and artillery. After crossing the road on March 7, 1862, the Confederates fought to maintain their ground, but eventually the road became the route of the Confederate retreat from the battle on March 8, 1862.

In the years following the battle, the road continued in use. Huntsville Road was still in use as a secondary, gravel/dirt road when the park was established in 1956. After this, the road was no longer used for vehicular traffic. Huntsville Road retains the character and alignment of the original road and is a contributing feature.

Alvin Seamster Road

This road was built after 1940 (based on historic aerial photographs) and although a path may have occurred in this location previously, it was likely not in place during the period of significance. The road is a non-contributing feature.



Figure 3-131. Huntsville Road is a two-rut track, maintained as a mown path (Source: MB 2013).

Elkhorn Tavern / Williams Hollow

Contributing Circulation Features

- Telegraph Road
- Huntsville Road

Non-Contributing Circulation Features

- Old Highway 72 alignment
- Tour Road
- contemporary paths
- Alvin Seamster Road
- Park Loop Trail
- Horse Trail

Buildings and Structures
Existing Condition and Analysis

The only building within this landscape character area is Elkhorn Tavern, the most prominent feature and only standing building. Structures include two commemorative monuments, a spring box, a cave entrance, and several wells.

At the time of the Battle of Pea Ridge, the area included many other buildings and structures that were important to the battle. These are now non-extant. Some remain as extant foundations or remnants of structures, and others are archeological sites in known locations. These non-extant buildings and structures include outbuildings associated with Elkhorn Tavern, buildings and structures associated with the tanyard, and buildings and outbuildings associated with Clemens' House site.

Two monuments that commemorate soldiers on both sides of the battle were erected in the 1880s, under the guidance of veterans from each army.[3.89]

Elkhorn Tavern

Elkhorn Tavern is a building of approximately twenty-five feet by thirty-three feet and is the most prominent built feature within this landscape character area. Today, the building and surroundings is an important interpretive site that is open to the public with interpreters on-site most days.

The standing building was rehabilitated by the NPS in 1964, to resemble its appearance as noted in a 1880s photograph.[3.90] Set on the original foundation stones, the building is a clapboarded two-story structure with a covered porch that extends for the full length of the south façade on both floors. Twin stone chimneys flank the east and west façades. The building is painted white and has a skull of an elk on the roofline as it had during the battle. The building consists of a basement, first floor and second floor. The building is in good condition.

During the Battle of Pea Ridge, Elkhorn Tavern and associated barn and outbuildings were the most prominent features on the battlefield. The area was first a stronghold of the Union army, as they used Elkhorn Tavern as a command post prior to March 7 and 8, due to the strategic position near the rear of the Union line. The outbuildings and barn were used to store the Union army's provisions. When fighting began on March 7, 1862, the Cox family, who owned the building at the time, sought refuge in the basement as the battle raged around them. By the end of the first day of fighting on March 7, 1862, the Confederate army had taken possession of Elkhorn Tavern. The Confederates used the building as a field hospital and Van Dorn set up his headquarters inside. The following day on March 8, 1862, Elkhorn Tavern was re-captured by Union troops.

After the battle, the Elkhorn Tavern became the headquarters of one of the Union commanders and was used as a military telegraph station by Union troops until December 1862. According to oral history, in 1863, after the last troops departed, the building was burned by Confederate bushwhackers, leaving just the two rock chimneys and the rock walls of the basement.[3.91]

Elkhorn Tavern was originally built between 1833 and 1840 by William Reddick and his son-in-law Samuel Burks. The single-family dwelling was originally a two-story log house

3.89 NRHP, 3.
3.90 1963 Historic Structures Report for full details and drawings of the Elkhorn Tavern.
3.91 John W. Bond, The History of Elkhorn Tavern, 12.

set on a stone foundation with two stone chimneys and a full-length porch. Prior to the Civil War, Elkhorn Tavern served as trading post, post office, and place of worship as well as a tavern. It was well-known as an unofficial stop for the Butterfield Overland Stage where travelers along Telegraph Road stopped to eat, rest their horses and stay the night. The building was rebuilt by the Cox family after it was burnt in 1863, using stones from the original building for the new foundation and chimneys.

The building was modified three more times before the park was established. In the 1880s, a second story was added, and in 1903, a one-story addition of two rooms was attached to the rear and center of the building. In 1917, the building was extended to the north by six-feet, the original rock chimney on the north side was removed and replaced by a brick chimney, and the roof over the double porches was removed. The double porches were shortened and a high gable was extended over the top of the second-story porch.[3.92]

During the 20th century, the building served as a museum. The NPS took ownership in 1960, and in 1964, the building was partially demolished due to the deteriorated condition and early 19th century modifications. The NPS reconstructed the building to resemble its 1880s appearance, taking five years to complete.

Today, Elkhorn Tavern is a significant building within Pea Ridge National Military Park. The reconstructed building contributes to the historic character of the Elkhorn Tavern / Williams Hollow cultural landscape and to the park.

The building retains important historic fabric, namely the 1865 south chimney and the stone foundation originally rebuilt by the Cox family. It has been reconstructed to resemble its battlefield appearance using available documentation.



Figure 3-132. The stone foundation and basement of the Elkhorn Tavern were initially rebuilt using original materials from the period of significance. (Source: MB 2013).

Although the only original elements that date from the battle are the south chimney and the stone basement, the reconstructed building reflects the historic appearance of the original and assists in the interpretation of the historic landscape.

3.92 John W. Bond, The History of Elkhorn Tavern, 13.

Elkhorn Tavern Chronology

1833 to 1840	Elkhorn Tavern was built between 1833 and 1840 by William Reddick and his son-in-law Samuel Burks as a single-family dwelling.
1842 to 1862	The first Benton County Baptist Church was organized with Elkhorn Tavern being the place of worship. This use continued until 1862 when the congregation moved to a new church at Twelve Corners, 3 miles northwest.
1840 to 1850s	Elkhorn Tavern served as trading post, post office and place of worship as well as a tavern. It was a likely a place for travelers along the Telegraph Road to eat, rest their horses and stop for the night
1858	Jesse C. and his wife Polly Cox purchased Elkhorn Tavern and the adjacent 313 acres from Samuel Burks for $3600. The Cox family were native Kentuckians who had moved to Arkansas in 1858.[3.93] Jesse Cox added an exterior stair so that the church patrons could go upstairs to the northeast room for their worship services without disturbing other guests. Other improvements included weather boarding using lumber milled at Blackburn's mill on War Eagle Creek.[3.94] The building got its name as Elkhorn Tavern when a neighbor gave the carcass and horns of a large elk to Mr. Cox, who added the horns to the roofline.[3.95]
February 1862	With the retreat of Major General Sterling Price of the pro-Confederate Missouri forces, and the close pursuit of General Samuel R. Curtis' Union troops, it was clear there was the likelihood of a battle in the area. Knowing this, Jesse Cox moved move his cattle to land the family still owned in Kansas but was unable to move all of his family. At the time of the battle, five members of the Cox family and five slaves remained at Elkhorn Tavern.[3.96]
March 1862	The area was first a stronghold of the Union army, as Major Eli Weston, Provost Marshall for Curtis used Elkhorn Tavern as a command post prior to March 7th. Troops camped in the fields where they also stored equipment and supplies including ordinances and food stuffs. The large barn, southwest of the tavern building, stored the Union army's commissary and sutler provisions. Confederate prisoners were Westons' responsibility and were housed on site as well.[3.97]
March 7, 1862	The Cox family sought refuge in the basement of Elkhorn Tavern. By the end of the day, the Confederate army had taken possession of the building and area. They used the building as a field hospital and Van Dorn set up headquarters inside.
March 8, 1862	Elkhorn Tavern was re-captured by Union troops. Elkhorn Tavern was used by the Union army until December of 1862.
December 1862	After the battle, the Elkhorn Tavern became the headquarters of one of the Union commanders and was used as a military telegraph station. Elkhorn Tavern was used by the Union army until December 1862.

3.93 Bond, History of Elkhorn Tavern, 2.
3.94 Ibid., 2-3.
3.95 Ibid., 3.
3.96 Ibid., 4-5.
3.97 Ibid.

c. 1863	Elkhorn Tavern was burned by Confederate bushwhackers.
1865 to 1866	The Cox family returned to their farm and rebuilt Elkhorn Tavern as a single story structure. The family had left after the battle and did not return until the end of the Civil War.
1880s	A second story was added to Elkhorn Tavern.
1903	A one-story addition of two rooms was attached to the rear (west) and center of the building.
1917	The building was extended to the north by six-feet, the original rock chimney on the north side was removed and replaced by a brick chimney, and the roof over the double porches was removed. The double porches were shortened and a high gable was extended over the top of them.
c. 1940	The building served as a Museum.
1956	When Pea Ridge National Military Park was established, Mrs. Frances Scott was living at the Elkhorn Tavern. A stone archway and signs were in front of the tavern.
1959	The property was purchased by the state of Arkansas. The property had remained in continuous Cox family ownership from 1858 until this time.[3.98]
March 7, 1960	Elkhorn Tavern was transferred to NPS ownership[3.99]
1964 to 1969	The building was partially demolished due to its deteriorated condition and the modifications made in 1903 and 1917. The building was reconstructed to resemble a 1880s appearance as noted in historic photographs.[3.100] Historic American Building Survey.

3.98 Bond, History of Elkhorn Tavern, 2.
3.99 CLI, 12.
3.100 Huggard, Administrative History, 118.



Figure 3-133. Elkhorn Tavern was destroyed after the Battle of Pea Ridge and rebuilt c. 1866, by the Cox family (Source: PERI).



Figure 3-134. When the park was established, Elkhorn Tavern had a single-story addition on the west side. A stone wall was in front of the building, which once held a sign stating that it was the site of the Butterfield Overland Stage route (Source: PERI).



Figure 3-135. Elkhorn Tavern was rebuilt in the 1960s, to reflect to its 1880s, appearance. Work included removing the rear (west) extension and modifying the double porch at the building's front facade (Source: PERI).



Figure 3-136. Elkhorn Tavern, 2013 (Source: MB 2013).



Figure 3-137. The Clemens' House foundation was semi-reconstructed by the park (Source: MB 2013).

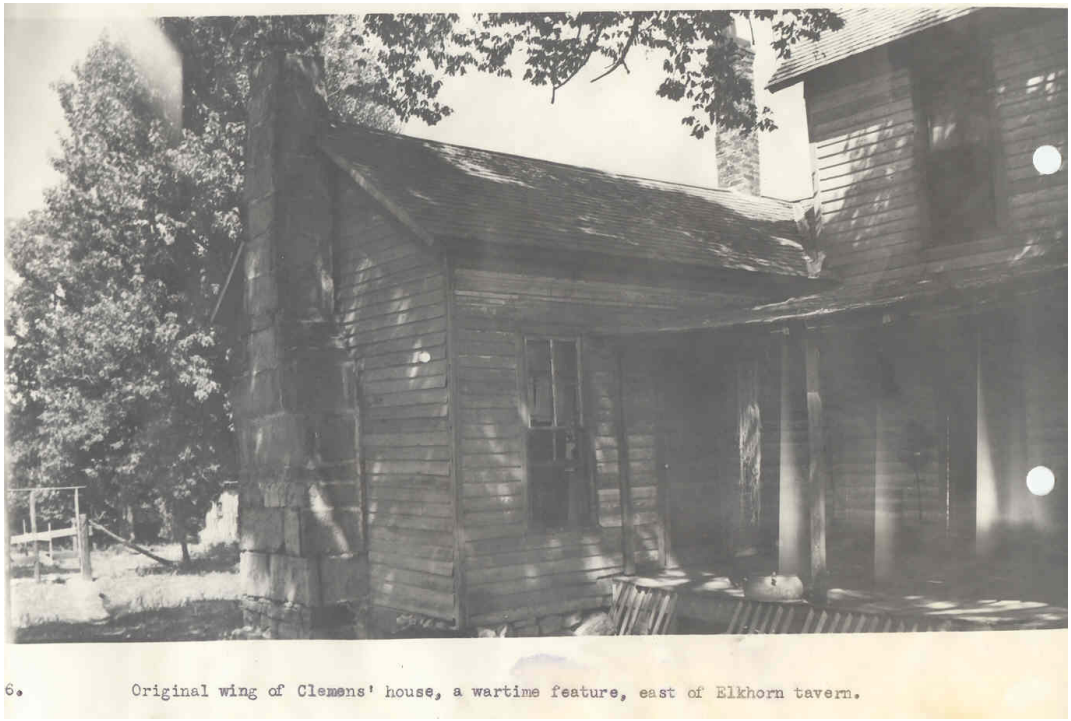


Figure 3-138. A portion of Clemens' House that was standing at the time of the battle was still extant in 1940. Today, this building is non-extant. It is unknown when it was removed (Source: PERI).

Clemens' House
The foundation of the Clemens' House is extant and consists of fieldstone in a rectangular shape of thirty-two-feet by fourteen-feet. The foundation was made more visible by the park when they added a course of wood logs adjacent to the original stones. The Clemens' House foundation is in good condition.

The Clemens' House was likely built between 1830, and the 1840s. Historic photographs indicate this building was a clapboard structure in c. 1940, with two wings, one at a single story (the original section), and the other at the second two stories high. It is unknown when Clemens' House was removed or last inhabited.

The Clemens' House is a contributing feature as it was present at the time of the battle.

Tanyard House Foundation/ Bart Green House

This structure is non-extant, but the stone foundation is visible. During the June 2013 field investigations, the foundation was difficult to discern due to overgrown vegetation, primarily tall grasses, obscuring the feature.

The extant foundation is most likely that of the Bart Green house that was built after the battle over one of the earlier tanyard vats. The house was removed after the park was established in the 1960s.

The tanyard was started in the late 1830s or early 1840s by either William Ruddick or Samuel Burks. Although evidence is inconclusive, it appears that Samuel Burks owned and operated the tanyard in March 1862. At this time, it is likely that the tanyard consisted of a series of vats dug along the stream with a small building adjacent to the vats for the tanners to work within. This small building and the yard around it was used for a hospital by the Confederates during the battle. The tanyard had disappeared by 1888. It is unknown when Bart Green built his residence at this location.



Figure 3-139. Extant stone foundation at the tanyard (Source: MB 2013).

The tanyard contributes to the historic character of the cultural landscape. The extent of foundations of the vats or other structures from the time of battle is unknown. However, further research would be instrumental in locating these features as well as determining the extent of the foundation of Bart Green's residence.



Figure 3-140. The two commemorative monuments are located across the Tour Road from Elkhorn Tavern (Source: MB 2013).



Figure 3-141. The Monument to the Brave Confederate Dead (Source: MB 2013).



Figure 3-142. The Monument to the Reunited Soldiery, 2013 (Source: MB 2013).

The Monument to the Brave Confederate Dead

This monument is located southwest of Elkhorn Tavern, across the Tour Road from the building, and accessed by a concrete path from the parking area.

The monument is a slender limestone pillar topped with a funeral urn that is approximately fifteen-feet in height. The pillar is mounted on a square inscribed column that sits on a circular concrete pad. The monument is located in an open field, near the Monument of the Reunited Soldiery. They are connected by a concrete path. Both monuments are visible from the Tour Road. The inscription on the monument bears the names of the Confederate commanders who were killed during the battle: McCulloch, McIntosh and Slack. The monument is in good condition.

This monument was erected on September 1, 1887, during the 25th anniversary of the Battle of Pea Ridge to commemorate the Confederate soldiers. Anecdotal evidence suggests that the monument was originally erected in Mayfield's Corn Field where McCulloch was killed, and was later moved to its current location.

The Tour Road was built in 1963, between the two commemorative monuments and Elkhorn Tavern. This impacted the relationship between the features, and diminished the integrity of the setting. In the early 1980s, the area around the monuments was cleared of native vegetation. It was then filled, graded, and planted with lawn grasses.

The Monument to the Brave Confederate Dead is a contributing feature as it assists in commemorating the battle and the Confederate soldiers.

Monument to the Reunited Soldiery

This commemorative monument is located to the northwest of the Monument to the Brave Confederate Dead. They are connected by a concrete path that also connects to the Elkhorn Tavern parking area.

This monument is a limestone carved female figure mounted on a limestone block with a fieldstone/brownstone block base. It is located in the open field, visible from the Tour Road. The monument is in good condition.

The inscription on the monument includes carvings on two sides. One side states: "Gray / Major General E. Van Dorn / Commander of the Army of the West. The opposite side states: "Blue / Major General S.R. Curtis / Commander of the Army of the Southwest."

The carving on the front side of the monument states:

ANGEL ALOFT
Spirit of eternal light
Keep silent vigil o'er the brave
The untarnished blue
The unsullied gray
In peace and love unite
Proud heroes have fallen
And over their grave
Our hearts are united
Our country to save
Over the dead the living bend
And up to their God their voices send
That in Liberty's crown or Eternity's day
He may place as fair Jewels
The Blue and the Gray
A United Soldiery
The Blue
The Gray

The Monument to the Reunited Soldiery was erected in September 1889 during the dual Blue-Gray reunion of veteran soldiers. At the time, the monument was placed on a natural bed of exposed limestone bedrock. The monument has remained in this location



Figure 3-143. The spring box at Elkhorn Tavern is built of stone, and is approximately eight-feet square (Source: PERI).



Figure 3-144. The cave is a natural limestone formation with a man-made carved entrance. It was used by the inhabitants of Elkhorn Tavern to keep provisions cool during summer months (Source: PERI).

and in the original orientation since its installation by the Civil War veterans. The Tour Road was built in 1963, and was located between the monuments and Elkhorn Tavern. This impacted the relationship between the features, and diminished the integrity of the setting. In the early 1970s, the park cleaned and stabilized the monument. The concrete path was added in the 1980s, and the area around both monuments was cleared of native vegetation, then filled, graded and planted with lawn grasses. This work modified the monument as the fill material now covers the bedrock base, and it is no longer visible.

The monument is a contributing feature as it assists in commemorating the battle and the soldiers.



Figure 3-145. Originally, the Monument to the Reunited Soldiery was built upon a natural bed of exposed limestone bedrock, surrounded by native vegetation (Source: PERI).

Spring Box

The spring box is a stone masonry cistern that measures eight-feet square and approximately four-feet deep. Five stone steps lead to the bottom of the spring box, which is fed by a natural spring adjacent to a temporal stream that originates from Elkhorn Mountain. The area around the cistern is wooded, but the undergrowth at the spring box is minimal. The spring box is north of Elkhorn Tavern, connected by a pedestrian trail. It was used by residents of Elkhorn Tavern. A narrow, informal path connects the spring box to the cave entrance built in the hillside opposite the small drainage and uphill of Elkhorn Tavern.

A park interpretive sign describes the spring box. The cistern was filled with water, and the bottom was full of dirt and debris at the time of the June 2013 field investigations. The spring box appears functional and in good condition.

The spring box is a contributing feature as it was built c. 1840, to 1860, and was in place at the time of the Battle of Pea Ridge.

Cave Entrance

This feature is part natural landform and part man-made structure. The cave is a natural limestone opening located within the hillside of Elkhorn Mountain to the west of Elkhorn Tavern. It is accessed by a narrow, worn path. The cave extends approximately ten-feet in one direction and twenty-feet or more in the opposite direction with an overhead clearance of about five to six-feet. The cave's entrance has been formed into a formal, neat square opening in the rock.

The cave entrance was likely carved during the 19th century. The interior of the cave is approximately ten degrees cooler than the temperature outside, making it ideal for the residents of the Elkhorn Tavern to use it for food and ice storage during summer months. It is possible that the armies fighting during the Battle of Pea Ridge also used the cave for storage. In the 1960s, the NPS formalized the path from the Elkhorn Tavern to the cave.

The cave entrance is a contributing feature as it was present during the period of significance.

Non-Extant Structures

Elkhorn Barn and Stable

This structure is non-extant.

The Elkhorn Barn was likely built in the 1830s around the same time Elkhorn Tavern was built. A stable was originally located adjacent to the barn, and was used for storing wagons and carriages. In the days prior to the battle in early March 1862, the barn was used by the Union army for stockpiling equipment and supplies, and for storage of commissary and sutler's stores.[3.101]

In 1887, at the time of the battle reunion, a Confederate soldier, AM Payne, recalled "I was surprised to find how little it had changed... but the barn was gone and in its place an apple orchard grew."[3.102]

At an unknown date, a different barn and stables were built on the east side of Telegraph Road, north of Elkhorn Tavern. According to Bearss, the new barn was built in the area where a blacksmith shop had stood during the Civil War years.[3.103] This barn and stables were extant c. 1940. It is unknown when they were removed.

The area of these two structures contributes to the historic character of the cultural landscape. However, further research is needed to identify the exact locations of the Elkhorn Barn and Stable.

Elkhorn Outbuildings

These structures are non-extant.

Historic reports from the battle make reference to a lean-to located behind Elkhorn Tavern.[3.104] It is also likely that other outbuildings existed at the time and were located behind the building, such as a privy or storage sheds.

After the battle, hog houses were built approximately one hundred yards north of the building alongside Telegraph Road.[3.105]

The area of the Elkhorn outbuildings contributes to the historic character of the cultural landscape. However, further research is needed to identify the exact locations of these structures.

3.101 Bearss, Leetown, Elkhorn Tavern Grounds, Federal Earthworks, and tanyard as of March 1862, 43.

3.102 Payne, 'Story of the Battle of Pea Ridge, unpublished manuscript; in Bearss, 1965. Leetown, Elkhorn Tavern Grounds, Federal Earthworks, and tanyard as of March 1862, 53.

3.103 Bearss, Leetown, Elkhorn Tavern Grounds, Federal Earthworks, and tanyard as of March 1862, 66.

3.104 Bearss, 1965. Leetown, Elkhorn Tavern Grounds, Federal Earthworks, and tanyard as of March 1862, 51.

3.105 Bearss, Leetown, Elkhorn Tavern Grounds, Federal Earthworks, and tanyard as of March 1862, 69.

Elkhorn Cabins

Two cabins were located northwest of Elkhorn Tavern in the 1880s. It is unknown if these were present at the time of the battle, but it is possible that they served as slave quarters.[3.106] The cabins were built approximately fifty-feet north of the building and measured approximately twenty-four by thirty-feet. They were accompanied by a privy and storage shed.[3.107]

Foundations of these structures were not field verified during the June 2013 field investigations.

Clemens' Barn

This structure is non-extant.

The Clemens' Barn was likely built at the same time as the Clemens' House, and was present during the battle. It is unknown when this structure was removed.

The area of the Clemens' House and Barn contributes to the historic character of the cultural landscape. However, further research is needed to identify the location of Clemens' Barn.

Blacksmith Shop between Clemens' and Elkhorn Tavern

This structure is non-extant.

At the time of the battle, the blacksmith shop was located to the east of Telegraph Road between the Elkhorn Tavern and Clemens' House. The soldiers remembered its presence, "On Cuibor's right was the tavern, on his left a blacksmith's shop, and in the lot some corn-cribs". [3.108] The blacksmith shop was likely part of the Elkhorn Tavern grounds where travelers could re-shoe their horses while staying at the inn. It is unknown when this structure was removed. It may have been destroyed at the same time as the Elkhorn Tavern in c. 1863 as no later reports or references to the shop exist.

The area of the blacksmith shop contributes to the historic character of the cultural landscape. However, further research is needed to identify its historic location.

Elkhorn Tavern / Williams Hollow

Contributing Buildings and Structures

- Elkhorn Tavern
- Clemens' House foundation
- Monument to the Brave Confederate Dead
- Monument to the Reunited Soldiery
- Spring Box
- Cave Entrance
- Non-extant foundations / archeological sites
    - Elkhorn Tavern barn and stable
    - Clemens' Barn and outbuildings
- Non-extant structures
    - Elkhorn Cabins (possible slave quarters)
    - Lean-to (behind Elkhorn Tavern)
    - Elkhorn Tavern outbuildings
    - Blacksmith shop

Non-Contributing Buildings and Structures

- tanyard house foundation/ Bart Green house

3.106 PERI park staff.
3.107 Bearss, 1965. Leetown, Elkhorn Tavern Grounds, Federal Earthworks, and Tanyard as of March 1862, 66.
3.108 Bearss, 1965. Leetown, Elkhorn Tavern Grounds, Federal Earthworks, and tanyard as of March 1862, 51.



Figure 3-146. Worm fences are used to delineate the extents of fields, barnyards, farmhouses and orchard spaces, and as a means to control visitor access (Source: MB 2013).



Figure 3-147. Split rail fence at Elkhorn Tavern (Source: MB 2013).

Small Scale Features

Existing Condition and Analysis

Small scale features within this landscape character area include fences, artillery, signs, cisterns and wells. These features are primarily associated with interpretation of The exception is two historic wells.

Wells

Several wells exist within this landscape character area. Many have been filled for safety reasons, but others have not.

At the tanyard, a stone-lined well of approximately two-feet in diameter exists near the extant foundation. The well is generally obscured by overgrown vegetation, primarily grasses and is filled with soil and sand for safety reasons. The well was likely built after the battle at the same time as the Bart Green house.[3.109]

Worm Fences

Within this landscape character area, worm fences were built by park staff in 2003, to delineate the extents of fields, barnyards, farmhouses and orchard spaces, and as a means to control visitor access. These fences are generally four-feet in height, and each rail section is approximately six-feet in length. All worm fences are reconstructions of a type that has been identified as being used at the time of the battle.[3.110] They are placed as close as practicable to known historic fence lines.

To determine placement of fences, park staff consulted Bearss 1965 map. They verified the fence lines from these documents by reviewing the 1899 Fayetteville quadrangle and photographs from the 1940s and 1960s.

At Elkhorn Tavern, measurements were taken off of the chimney using Bearss map to identify where the fences would have been. When placing fence lines investigated the site for evidence of grade change. In some cases, linear mounds or lines were identifiable, allowing park staff to follow extant fence lines in the placement of the non-historic fences.

The use of the worm fence type to delineate known historic fence lines provides an important interpretation of the battlefield. The fences delineate some of the spaces of fields, pastures and orchards that existed at the time of the battle. However, the full extent of the Elkhorn Tavern pastures, fields, and wooded lot are not fully fenced. The full extent of fencing around the building and orchard is not known.

The worm fence is non-contributing. However, the fence alignments placed along historic lines contribute to the historic character as they reflect the fences and fields that existed at the time of the battle.

Split Rail Fences

A wood split rail fence is used to define the immediate area and spaces around Elkhorn Tavern.

The fences are in good condition. The split rail fences are non-contributing features.

3.109 Bearss, 1965. Leetown, Elkhorn Tavern Grounds, Federal Earthworks, and Tanyard as of March 1862, 9.
3.110 Interview with park staff, June 2013 field investigations.



Figure 3-148. Artillery in Clemens' field have been placed in the direction they were oriented during the battle (Source: MB 2013).

Artillery

Three lines of artillery have been emplaced within this landscape character area. They are emplaced in Clemens' Field, in front of Elkhorn Tavern oriented to the east, and north of Elkhorn Tavern oriented down Telegraph Road into Cross Timber Hollow.

The artillery are replicas of those that are known to have been in use during the Battle of Pea Ridge. Each is oriented as it would have been during one of the battles during the two-day battle. They are non-contributing features, however they assist in interpreting the battle to visitors.

Interpretive Signs

Interpretive signs are of two types within this landscape character area. The standard park interpretive sign occurs near the two commemorative monuments and Elkhorn Tavern, and in Williams Hollow. These signs are similar to other interpretive signs used throughout the park. A second type of interpretive sign occurs in the tanyard and near the spring box. These are painted wood signs with engraved lettering.

Interpretive signs at Elkhorn Tavern and Clemens' House site were first installed with the construction of the Tour Road in 1963. The signs have been replaced since. They are in good condition. It is unknown when signs in the tanyard and near the spring box were installed. The interpretive signs are non-contributing features.

Regulatory and Directional Signs

Signs within the landscape character area provide regulatory information such as identifying universal accessible spaces in the Elkhorn Tavern parking area.

Small medallions placed on trees along the park loop trail occur at the tanyard and Williams Hollow hospital site.



Figure 3-149. Standard NPS signage at the Elkhorn Tavern (Source: MB 2013).

Elkhorn Tavern / Williams Hollow

Contributing Small Scale Features

- Wells

Non-Contributing Small Scale Features

- Artillery (replica)
- Worm Fences
- Split Rail Fences
- Interpretive Signs
- Regulatory and Directional Signs



Figure 3-150. Vegetation in Cross Timber Hollow is deciduous woodland with dense undergrowth (Source: MB 2013).



Figure 3-151. The extant patterns and type of vegetation remain similar to those in existence during the period of significance. Areas of forest remain, although the density has increased significantly, and open areas remain that would have historically been cultivated crops or pastures (Source: MB 2013).

Vegetation

Existing Condition

The vegetation of this landscape character area is as diverse as its topography and natural environment. Vegetation ranges from areas of dense woodland and undergrowth to open mown fields, depending on location. The dramatic topography of Elkhorn Mountain and the hollows offers a variety of habitat for various plant species. The uplands and hillsides contrast with the hollows, and vegetation ranges from dry deciduous hardwood forest to a typic (wetter) upland deciduous forest to bottomlands where more hydrophilic species thrive.[3.111] This forested vegetation is contrasted by fields of grasses, an apple orchard, and remnants of domestic ornamental vegetation.

At Elkhorn Tavern, vegetation is primarily mown grass in clearings and fields, and along paths and trails. Mown grass surrounds the building and extends into the fenced areas immediately adjacent to the building. The area around the two commemorative monuments is mown grass. Set within the grass areas near the building are several large shade trees. An apple orchard is located to the west of Elkhorn Tavern. It is roughly square, composed of a six by six-foot grid of small (<two-inch caliper) apple trees. The apple orchard contains twenty-eight trees. Fences delineate the orchard on the north and east sides. Most trees are in good/fair condition, however a few are in poor condition. There are four missing trees in the grid.

The Clemens' House site and fields are composed of grasses that are periodically mown. The paths that follow the historic routes of Telegraph Road and Huntsville Road are also mown grass. The small clearing at the tanyard is primarily tall unmown grasses that is surrounded by native trees. A few roses grow along the edges of the tanyard.

3.111 Vegetation Management Plan, 2014.

Surrounding these open areas of mown grasses in fields and building areas is the dry deciduous woodland and forest of the tops and hillsides of Elkhorn Mountain, and the typic upland deciduous woodland and forest that characterizes most of this landscape character area.[3.112] The forest of Elkhorn Mountains is a post oak (*Quercus stellate*) - blackjack oak (*Quercus marilandica*) woodland type that occurs on gentle to steep hills and plains, bluff escarpments, and broad ridges and flats with any aspect, but primarily south- and west-facing slopes. The upland deciduous forest is a black oak (*Quercus velutina*) - white oak (*Quercus alba*) – hickory (*Carya alba*) forest community that is the primary forest association at the park.[3.113]

Several trees may exist from the time of, or before the battle. The quantity and species of these trees has not yet been identified.[3.114]

Analysis

The patterns and type of vegetation that exist within the Elkhorn Tavern / Williams Hollow landscape character today are similar to that which existed during the period of significance. The areas of forest remain similar to these historic areas. However, the density of vegetation has increased significantly, and forest growth has extended into areas that were historically cultivated fields. Areas that were known to be cultivated fields or open clearings around structures are today mown grasses that reflect the low growing appearance of the historic fields. This is not historic vegetation.

3.112 Vegetation Management Plan, 2014.
3.113 Comprised almost twice as much area as all other types combined, Vegetation Management Plan, 2014.
3.114 Interview with park staff. Kevin Eads, 95% Draft Comments.



Figure 3-152. The extant patterns and type of vegetation within Clemens' Field remains similar to what existed historically (Source: MB 2013).



Figure 3-153. The apple orchard at Elkhorn Tavern was replanted with apple varieties common in 1862 (Source: MB 2013).

During the battle, the area around Elkhorn Tavern was described by soldiers as having been a field of ten to twenty acres with an apple orchard.[3.115] During the winter of March 1862, the fields would have been dormant with remnant vegetation from crops or pasture grass, and edged with trees. Today the appearance of this area is similar, although the full acreage is not discernable and the fields are no longer in cultivation. The exact extent of individual historic fields is not completely known.

The apple orchard was expanded sometime after the Civil War. Returning veterans in the 1880s remarked on the lack of the barn, and on the presence of an expanded, large apple orchard.[3.116] At some point, the apple orchard was removed or the trees eventually died. The extant apple orchard was replanted by the park in 2005, by the Boys and Girls Club using apple varieties that would have been used in 1862. Painted fence lines on walkways, parking areas, and Tour Road indicate where the orchard occurred historically. More than half of the apple orchard's historic area is now the parking lot and Tour Road. The apple orchard is in keeping with the historic description and appears to be in a similar location to the historic orchard. The number and arrangement of trees in the historic orchard is not known.[3.117]

At the time of the battle, Clemens' House site and fields were likely open and clear of vegetation for ease of working the land. As at Elkhorn Tavern, the fields would have been used for growing crops, or as pasture. Today, the area retains its historic appearance as open fields, smaller in scale and are no longer in cultivation. The trees have grown into the area between the two fields, diminishing the integrity of the open area.

The forests of Cross Timber Hollow and Williams Hollow are similar to those that existed at the time of the battle. However, the density of trees and dominance of tree species has changed dramatically. During the battle, these forests would have had a much less dense appearance. Several accounts noted the ability of the Union forces to see the Confederate advance.[3.118]

Historically, the area around the tanyard would have been kept clear of heavy undergrowth. While grass may have been planted in the clearing, it would have been maintained, unlike the appearance today. It is unknown when the roses in the tanyard were planted. They were a later addition and most likely do not date from the period of significance.

Further investigation into the age of extant mature trees is needed to verify those present at the time of the battle.

Elkhorn Tavern / Williams Hollow

Contributing Vegetation

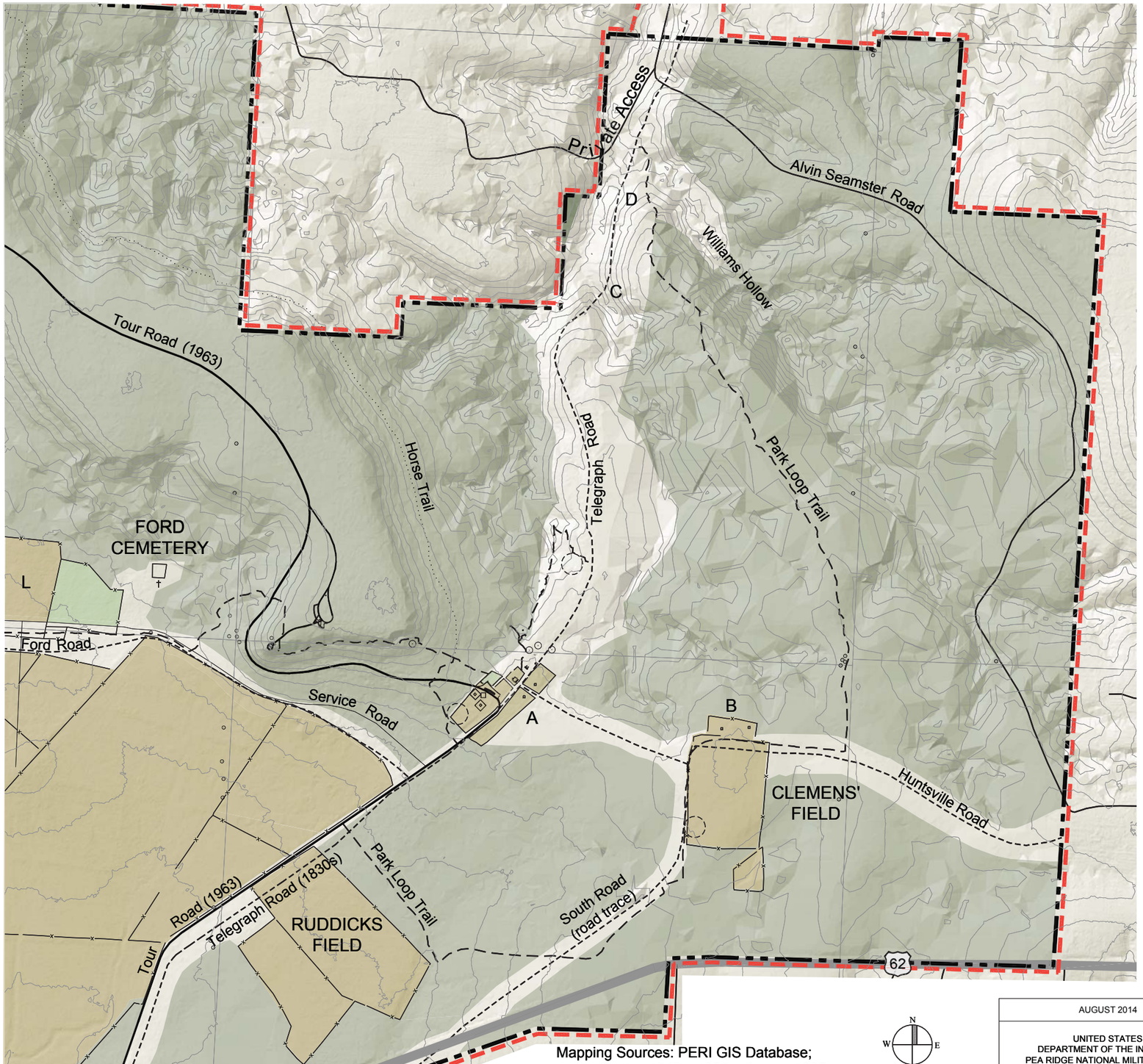
- Forests versus open fields
- Woodlands in the hollows
- Areas of pastures, fields and orchard
- Area of wood lot

Non-Contributing Vegetation

- Apple Orchard
- Roses in the tanyard

3.115 O. R., Series I, Vol. VII, 258. Bearss, 1965. Leetown, Elkhorn Tavern Grounds, Federal Earthworks, and tanyard as of March 1862, 47-48.
3.116 Payne, 'Story of the Battle of Pea Ridge, unpublished manuscript. Bearss, 1965. Leetown, Elkhorn Tavern Grounds, Federal Earthworks, and tanyard as of March 1862, 53.
3.117 Interview with park staff.

3.118 Bearss, 1965, Leetown, Elkhorn Tavern Grounds, Federal Earthworks, and tanyard as of March 1862, 53.



Legend

- PARK BOUNDARY
- STUDY AREA
- ROAD/HIGHWAY
- TOUR ROAD
- ROAD TRACE
- PARK LOOP TRAIL
- HORSE TRAIL
- TOPOGRAPHY
- WORM FENCE
- TREE
- GLO TREE (extant in 1842)
- CEMETERY
- POTENTIAL BURIAL SITE
- NON-EXTANT BLDG
- FIELDS/PASTURES
- WOODLANDS
- OPEN FOREST - ALONG ROADS
- ORCHARD

A ELKHORN TAVERN
- ELKHORN TAVERN
- BARNS (non-extant)
- OUTBUILDINGS (non-extant)
- MONUMENTS (2)
- SPRING BOX

B CLEMENS' FARM
- CLEMENS' HOUSE (foundation)
- BARN (non-extant)

C TANYARD

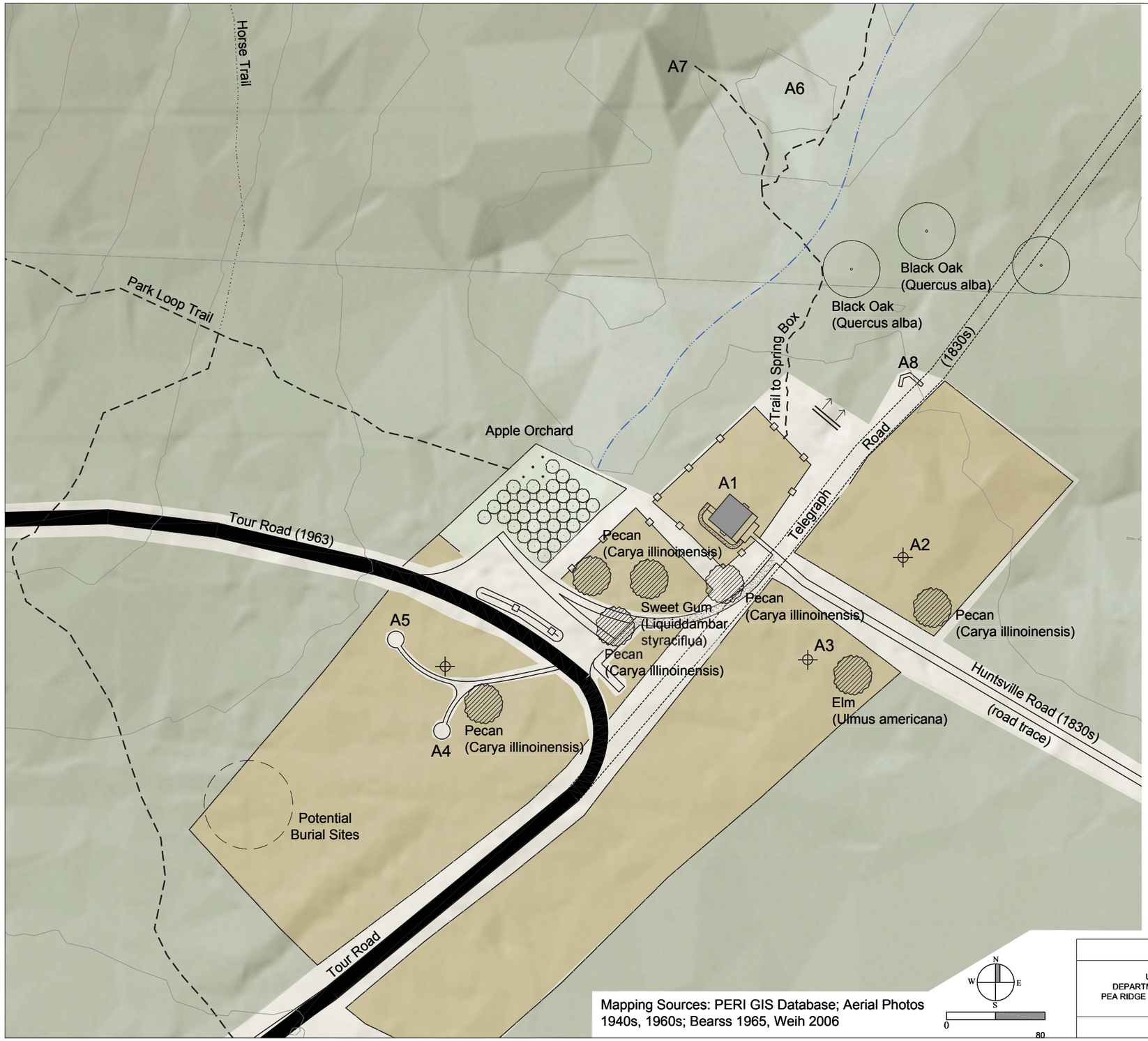
D UNIDENTIFIED STRUCTURES

L FORD FARM

Figure 3-154.

PERI 409 125965

AUGUST 2014	TITLE OF PROJECT: CULTURAL LANDSCAPE REPORT AND ENVIRONMENTAL ASSESSMENT
UNITED STATES DEPARTMENT OF THE INTERIOR PEA RIDGE NATIONAL MILITARY PARK	TITLE OF DRAWING: EXISTING CONDITION - ELKHORN TAVERN/WILLIAMS HOLLOW
	NAME OF PARK: PEA RIDGE NATIONAL MILITARY PARK
	REGION: MIDWEST; COUNTY: BENTON; STATE: ARKANSAS



Legend

- TOUR ROAD
- 1830s ROAD
- PARK LOOP TRAIL
- HORSE TRAIL
- INTERMITTENT STREAM
- WORM FENCE
- SPLIT RAIL FENCE
- FLAGSTONE WALK (1963)
- EXISTING TREE
- GLO TREE (extant in 1842)
- GPS FIELD POINTS 2013
- REPLICA ARTILLERY EMPLACEMENTS
- FIELDS/PASTURES
- WOODLANDS
- OPEN FOREST - ALONG ROADS
- ORCHARD

A1	ELKHORN TAVERN
A2	BARN (non-extant)
A3	BARN (non-extant)
A4	MONUMENT TO THE BRAVE CONFEDERATE DEAD
A5	MONUMENT TO THE REUNITED SOLDIERY
A6	SPRING BOX
A7	CAVE ENTRANCE

PERI 409 125965

Figure 3-155.

AUGUST 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
PEA RIDGE NATIONAL MILITARY PARK

TITLE OF PROJECT
CULTURAL LANDSCAPE REPORT
AND ENVIRONMENTAL ASSESSMENT
TITLE OF DRAWING
EXISTING CONDITION - ELKHORN TAVERN
NAME OF PARK
PEA RIDGE NATIONAL MILITARY PARK

REGION	COUNTY	STATE
MIDWEST	BENTON	ARKANSAS

Affected Environment

Introduction

This section describes the resources or conditions potentially impacted by the treatment alternatives. It is organized by impact topics that were derived from potential issues identified during internal park and external public scoping. More detailed information on park resources may be found in the GMP/EIS and the Draft Pea Ridge National Military Park Vegetation Management Plan and Environmental Assessment.[3.108]

Natural Systems and Features

The natural systems of Pea Ridge National Military Park include streams, mountains and cliffs, and the local plant and animal communities. Pea Ridge National Military Park is situated in rolling hills at the foothills of the Ozark Mountains and dissected by several streams and drainages. Elkhorn Mountain is the highest point within the park (1,610 feet) with the remainder elevated on a high plateau. The park consists of forests interspersed with fields.

The natural systems influenced the settlement and development of the area, and influenced the Battle of Pea Ridge by creating natural barriers and obstructions around which the armies had to negotiate.

Climate

The climate is primarily continental, but has a maritime influence from the Gulf of Mexico. The summers are warm, accompanied by high humidity. The winters are mild, but freezing temperatures occur in mid-winter. Precipitation averages nearly forty-five inches per year. Winters average eight to nine inches of snow per year. Spring is the wet season and May is the wettest month.[3.109]

Geology

The park is on the Springfield Plateau, part of the Ozark Highlands. The rock in the area is sandstone and limestone laid down in inland seas that existed in the area over two million years ago.[3.110] Tectonic activity uplifted the sedimentary layers creating the Ozark Highlands. This uplift and its subsequent erosion and weathering have produced the present topography. [3.111]

Soils

The soils within the park vary with the terrain. In general, Tonti soils are found on ridges, terraces, and stream terraces; Nixa soils occur on ridge tops; and Noark and Clarksville soils are located on steep hill slopes. Secesh and Elsah soils occur on floodplains.[3.112]

Hydrology

Intermittent streams dissect the terrain. These include Winton Spring Run, Pratt Creek, Little Sugar Creek, Williams Hollow, and Lee Creek. Winton Spring feeds Winton Spring Run, a drainage through the south end of the Park. Little Sugar Creek is the only perennial stream, which runs adjacent to the Federal Trenches. The 100-year flood level of Little Sugar Creek extends into this area.[3.113] All of these bodies of water originate within the park boundaries with the exception of Little Sugar Creek.

3.108 NPS 2006. NPS 2013. Draft Pea Ridge National Military Park Vegetation Management Plan and Environmental Assessment. In preparation.

3.109 Pea Ridge National Military Park, Resources Management Plan, 4.
3.110 Pea Ridge National Military Park, Resources Management Plan, 5.
3.111 Pea Ridge National Military Park, Resources Management Plan, 6.
3.112 Soil Conservation Service, 1977.
3.113 FEMA. Pea Ridge National Military Park, Resources Management Plan, 6.

Fauna

Species are typical of northwest Arkansas. Species surveys have found ninety-two bird, forty-six mammal, eighty-six fish, twenty-seven amphibian, and fifty reptile species. Common park wildlife includes white-tailed deer (*Odocoileus virginianus*), coyote (*Canis latrans*), red fox (*Vulpes vulpes*), several small mammals—gray squirrel (*Sciurus carolinensis*), fox squirrel (*Sciurus niger*), and eastern chipmunk (*Tamias striatus*)—as well as numerous migratory songbirds. Scarlet tanagers (*Piranga olivacea*), summer tanagers (*Piranga rubra*), rosebreasted grosbeaks (*Pheucticus ludovicianus*), ovenbirds (*Seiurus aurocapillus*), and various woodland warblers (*Phylloscopus* spp.) are among the bird species that visit the park in the spring and summer to nest and breed. The endangered gray bat (*Myotis grisescens*) is the only federally listed animal species that has been observed within the boundaries of Pea Ridge, though there are no resident populations within the park.[3.114]

The most visible fauna within the park are the numerous white-tail deer. These animals may pose a threat to resources by over browsing in certain vegetation communities and changing species composition.

Flora

Pea Ridge National Military Park is rich in natural resources and contains diverse ecosystems and habitats that support a variety of species, including several rare plants: field pussytoes (Antennaria neglecta), lobed spleenwort (*Asplenium pinnatifidum*), and Ozark chinquapin (*Castanea pumila ozarkensis*), and the federally listed endangered gray bat.[3.115] Invasive non-native species include *Sericea lespedeza* and Japanese honeysuckle, which are a threat to native habitats due to their ability to colonize and overrun ecosystems.

Cultural Resources

Cultural landscapes, archeological sites, and historic structures and objects associated with the park are described in detail in Chapter 2 and previous sections of Chapter 3 of this report.

Vegetation

The general historic and ecological contexts of the park, including vegetation types, were described in the previous sections of this report. This section provides information on existing vegetation communities in the park. The existing vegetation communities described in this section have been have been taken from the draft Vegetation Management Plan[3.116] and are summarized for brevity where appropriate. When different from the vegetation community, the cultural landscape vegetation type is provided in parentheses.

Mowed Grasses. Fescue and other pasture grasses were planted since the 1862 battle and have been maintained by the park by mowing. [3.117]Areas with mowed grasses include portions of the 1862 historical crop fields, pasturelands, wood lot, and peach orchard.

Typical Upland Deciduous Woodland and Forest (Arkansas Highlands Forest and Open Woodlands). The most prevalent vegetation association within the park is woodlands and forests dominated by black oak (*Quercus velutina*), other oaks (*Quercus* spp.), and

3.114 Civil War National Parks: The Battles for Missouri. State of the Parks. National Parks Conservation Association, June 2009, 50.
3.115 NPS, State of the Parks, 2009, 33.

3.116 NPS 2013. Draft Pea Ridge National Military Park Vegetation Management Plan and Environmental Assessment. In preparation.
3.117 Diamond, D., L. Elliott. M. DeBacker, K. James, and D. Pursell. 2013. Vegetation Classification and Mapping of Pea Ridge National Military Park – Project Report. NPS/PERI/NRR-2013/649. National Park Service, Fort Collins, CO. April.

mockernut hickory (*Carya alba*). These occur mostly on the northern and eastern ends of the park with scattered stands throughout the park.[3.118] Hardwood forests are composed of either even-age growth or two age classes. The density of the trees ranges from open woodland to closed canopy forests. Native shrubs such as coralberry (*Symphoricarpos orbiculatus*) and flowering dogwood (*Cornus florida*) and small trees dominate the understory, with an often sparse herbaceous layer.[3.119]

Dry Deciduous Woodland and Forest (Arkansas Highlands Forest). Dry woodlands and forests dominated by post oak (*Quercus marilandica*), other oaks, and black hickory (*Carya texana*) cover the top and slopes of Elkhorn Mountain, except where previously disturbed. On the ridgetop and other elevated portions, this association consists of open woodlands with a grassy understory of Virginia wildrye (*Elymus virginiana*). The tree canopy is more closed on the mountain slopes with fewer herbaceous species in the understory.[3.120] Hardwood forests are composed of even-age growth or two age classes.

Bottomland Deciduous Woodland and Forest (Arkansas Highlands Forest and Open Woodlands). Bottomland Deciduous Woodlands and Forest occurs along Lee Creek and other small creeks within the project area. Relatively early successional species such as black walnut (*Juglans nigra*) dominate these woods with an understory of coralberry and the nonnative multiflora rose (*Rosa multiflora*). Wetlands may also occur within these woods around streams.[3.121]

Eastern Red Cedar Woodland and Forest. Eastern red cedar is a common pioneer species that invades old crop fields and other open areas. This native conifer is shade intolerant as a seedling and tends to die out when densely shaded by overstory species.[3.122] Natural regeneration occurs in poor hardwood or pine sites or open pastures.[3.123] Pastures or open grasslands that are not burned provide an optimal growth medium for eastern red cedar because they are highly susceptible to burning. [3.124] Periodic mowing also prevents the establishment of eastern red cedar. Eastern red cedar forms dense stands with little diversity and little herbaceous overgrowth; although other deciduous trees such as American elm (*Ulmus americana*) and common hackberry (*Celtis occidentalis*) also grow in these woods and may eventually replace the eastern red cedar.[3.125]

Ruderal Grassland and Shrubland. In previously disturbed croplands that have not been mowed or burned frequently, grasslands with a mixture of shrubs and small trees have developed. Common small woody species include Pennsylvania blackberry (*Rubus pensilvanicus*) and coralberry, and common herbaceous species include tall fescue (*Schenodonus phoenix*) and a variety of other grasses and forbs. Most of the areas that are currently Ruderal Grassland and Shrubland were oak and hickory woodlands in 1862.[3.126]

3.118 Diamond, D., L. Elliott. M. DeBacker, K. James, and D. Pursell. 2013. Vegetation Classification and Mapping of Pea Ridge National Military Park – Project Report. NPS/PERI/NRR-2013/649. National Park Service, Fort Collins, CO. April.
3.119 Ibid.
3.120 Ibid.
3.121 Ibid.

3.122 Anderson, Michelle D. 2003. Juniperus virginiana. In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory (Producer). Available at: http://www.fs.fed.us/database/feis/. Last updated: May 31, 2013.
3.123 Ibid.
3.124 Lawson, E. 2013. Juniperus virginiana L. Eastern Redcedar. Available at: http://www.na.fs.fed.us/pubs/silvics_manual/Volume_1/juniperus/virginiana.htm.
3.125 Diamond et al. 2013.
3.126 Bearss, The Battle of Pea Ridge. 1862.

Restored Prairie. At the time of the 1862 battle, an area called the Round Prairie existed in an extinct Pleistocene lake bed at the western end of the park. Over time, the prairie degraded and in 2000 and 2001, efforts were taken to restore the prairie by planting native tallgrass species including big bluestem (*Andropogon gerardi*) and little bluestem (*Schizachyrium scoparium*).[3.127] Currently, big bluestem and little bluestem are the dominant species in the grasslands along with other typical tallgrass species, although nonnative grasses such as Kentucky bluegrass (*Poa pratensis*) are also present.

Orchards. In 2009, park staff reestablished the two orchards present in 1862, with the help of local civic organizations. The orchard near Elkhorn Tavern was planted with approximately 38 apple trees. The other orchard, which is adjacent to Ford Road, near Ford Cemetery on the historic Ford Farm, was planted with approximately 200 peach trees (approximately one-third of the historic orchard). The remainder of the area of the historic orchards contains fescue grasses.

Marsh. A cattail (*Typha latifolia*) marsh occurs in a small ponded area in the southwestern part of the park. This marsh was originally created as a pond in the 1940s. This wetland is dominated by herbaceous species with a few scattered trees including silver maple (*Acer saccharinum*) and common persimmon (*Diospyros virginiana*).

Silver Maple Forest. A forest dominated by young silver maples is present in a poorly drained area on the northwestern boundary of the park. These trees grow on disturbed moist soils along with other trees such as American elm. Based on the species described in Vegetation Classification and Mapping of Pea Ridge National Military Park, this vegetation association may contain wetland species.[3.128]

Glade. Glades are open areas in forests that are underlain by limestone, sandstone, or other bedrock that contain an uncommon assemblage of native wildflowers, potentially including rare plants.[3.129] A survey conducted in 2012, by Dr. Steven Stephenson of the University of Arkansas, Department of Biological Sciences in Fayetteville identified three glade-like areas within the park. These areas are associated with old eastern red cedar trees and contain prickly pear cactus (*Opuntia humifusa*) and other forbs typically found in glades. No rare plants were found during the survey.[3.130]

Historic Trees. Trees more than 150 years old that were alive at the time of the battle have been designated as historic trees. Twelve post oaks (*Quercus stellata*) and three white oaks (*Quercus alba*) have been found that were alive at the time of the battle, ranging in age from about two years to 262 years old at the time of the battle in 1862. These trees are located along the ridge and southern slope of Elkhorn Mountain and around Leetown Hamlet.

Invasive and Exotic Species. Invasive nonnative species dominate portions of nearly all open fields, prairie areas, and road corridors in the park. A vascular inventory in 2009, identified eighty-three nonnative vascular plants within the park.[3.131] The

3.127 Dale, Edward Jr. 1976. Reestablishment of Native Prairie at Pea Ridge National Military Park, Benton County, Arkansas – Final report for 1976 to Southwest Region National Park Service.

3.128 Diamond et al. 2013.

3.129 Dale. 1983.

3.130 Hinterthuer, W. 2003. Inventory of Vascular Plants of Pea Ridge National Military Park. Prepared for Heartland Network. Stephenson, Steven. 2012. Inventory Glades and Develop a Management Plan at Pea Ridge National Military Park – Progress Report. University of Arkansas, Department of Biological Sciences. Fayetteville, AR.

3.131 Williams, M.H. 2009. An evaluation of biological inventory data collected at Pea Ridge National Military Park: Vertebrate and vascular plant inventories. Natural Resource Technical Report NPS/HTLN/NRTR—2009/261. National Park Service, Fort Collins, CO.

park has identified twenty-two nonnative plant species that are of most concern, including Japanese honeysuckle (*Lonicera japonica*), fescue grasses (*Festuca* spp.), spotted knapweed (*Centaurea maculosa*), *Sericea lespedeza*, and Canada bluegrass (*Poa compressa*). These species have the ability to colonize, overrun, and disrupt ecosystems. Currently, the park treats approximately 500 to 1,000 acres with prescribed burns annually, and another 200 acres of invasive plants are mechanically removed.

Rare Species. An inventory of vascular plants in the park in 2003, identified four species that are tracked by the Arkansas Natural Heritage Commission because they are uncommon or have conservation concerns.[3.132] These species were the Ozark chinquapin (*Castanea pumila* var *ozarkensis*), lobed spleenwort (*Asplenium pinnatifidum*), field pussytoes (*Antennaria neglecta*), and black maple (*Acer nigrum*). The Ozark chinquapin trees were found in the park below the east overlook and the lobed spleenwort was found on the sandstone bluffs in the park below the east overlook. The 2003 inventory report did not document if the field pussytoes or black maple were found in the park.

An inventory of vascular plants conducted in 2009 identified forty-one plant species as species of conservation status.[3.133] No federally listed species are present or are likely to be present in the park; however, three state threatened species (forked aster (*Eurybia furcatus*); ovate-leaved catchfly (*Silene ovate*); and royal catchfly (*Silene regia*)) and two state endangered species (caric sedge (*Carex opaca*) and small headed pipewort (*Eriocaulon koernickianum*)) were noted as likely present in the park during the 2009 survey.[3.134] The forked aster is a woodland plant associated with low, wet areas; the ovate-leaved catchfly occurs in dry to mesic forests; and the royal catchfly occurs in open woods, glades, meadows, and prairies.[3.135] The caric sedge is found in low areas in prairies, roadside ditches, and poorly drained areas and the small headed pipewort is found in moist to wet sands and sandy silts of seep sites.[3.136]

Wildlife

The dense forests, open fields, and prairies within the park provide year-round habitat for a variety of wildlife. This habitat is becoming more important as development continues to increase and encroach around the park.[3.137] Common species in the park include white-tailed deer (*Odocoileus virginianus*); coyote (*Canis latrans*); red fox (*Vulpes vulpes*); opossum (*Didelphis marsupialis*); woodchuck (*Marmota monax*); eastern cottontail rabbit (*Sylvilagus floridana*); several species of squirrels, mice, and voles; and numerous migratory songbirds.[3.138]

An inventory of vertebrate species was completed at the park in 2009.[3.139] The inventory found 143 vertebrate species present in the park, including sixty-seven birds, nineteen fish, eighteen mammals,

3.132 Hinterthuer 2003.
3.133 Williams 2009.
3.134 Ibid.

3.135 Center for Plant Conservation (CPC). 2010a. Aster furcatus plant profile. Available at: http://www.centerforplantconservation.org/Collection/CPC_ViewProfile.asp?CPCNum=338. Last updated: September 28, 2010.
Center for Plant Conservation (CPC). 2010b. Silene regia plant profile. Available at: http://www.centerforplantconservation.org/Collection/CPC_ViewProfile.asp?CPCNum=4005. Last updated: March 4, 2010.
3.136 NatureServe. 2013. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, VA. Available at: http://www.natureserve.org/explorer. Last accessed: April 2, 2013.
3.137 National Parks Conservation Association (NPCA). 2009. State of the Parks – Civil War National Parks: The Battles for Missouri. June.
3.138 National Parks Conservation Association (NPCA). 2009. State of the Parks – Civil War National Parks: The Battles for Missouri. June. Johnsey, P. and M. Malinen. 1970. Final Report on Population Densities of Small Mammals in Relation to the Specific Habitat in Pea Ridge National Military Park, Benton County, Arkansas.
3.139 Williams 2009.

eighteen amphibians, and twenty-one reptiles. Of these, eight birds, one fish, three mammals, five amphibians, and two reptiles were listed by the Arkansas Natural Heritage Commission as species of conservation status. No federal- or state-listed vertebrate species were listed in the park. The federally endangered gray bat (*Myotis grisescens*) has been observed in the park; however, no resident populations are present in the park.[3.140] Other bat species have been observed in the park, including the red bat (*Lasiuris borealis*), eastern pipistrelle (*Pipistrellus subflavus*), and northern long-eared bat (*Myotis septentrionalis*), with five potential bat habitats documented within the park.[3.141]

A continuing concern of visitors and park staff has been the increase in white-tailed deer populations within the park.[3.142] The park is likely to have a higher density of deer due to the overall decline in deer habitat in northwest Arkansas from urban sprawl, agriculture, and forest clearing, and because the park provides a haven from predators and hunting.[3.143] White-tailed deer populations have been monitored in the park since 2005.[3.144] The deer populations have both declined and increased within the seven years of monitoring, with 2012, having a population value ten percent below the average value within those years. The decline in population levels in previous years was due to a hemorrhagic outbreak (an acute, infectious, often fatal viral disease of some wild ruminants) and future outbreaks are possible.[3.145]

In 2009, the park's fish monitoring program documented four species of fish in Pratt Creek.[3.146] The monitoring report indicated the species diversity was moderate and species richness was low, with three of the species intolerant to human disturbance and two that are benthic species that need clean gravel/cobble substrate. The fish species observed include southern redbelly dace (*Phoxinus erythrogaster*), orangethroat darter (*Etheostoma spectabile*), banded sculpin (*Cottus carolinae*), and redspot chub (*Nocomis asper*). One federally threatened fish species, the Ozark cavefish (*Amblyopisis rosae*), and one federally endangered crustacean species, the cave crawfish (*Cambarus aculabrum*), have been documented by the USFWS as potentially occurring in the park; however, based on the inventory conducted in 2011, it is unlikely these species are present.[3.147]

In 2000, the amphibian and reptile monitoring documented six species of salamander, one species of newt, eleven species of toads and frogs, two species of turtles, one species of lizard, three species of skinks, and fifteen species of snakes in the park.[3.148] The grotto salamander (*Typhlotriton spelaeus*), a state species of concern, has also

3.140 NPCA 2009.
3.141 Sley, M., C. Bitting, and J.D. Wilhide. 2004. A Bat Inventory of Buffalo National River, Pea Ridge National Military Park, and Wilson's Creek National Battlefield. February.
3.142 Grabner, K., M. Struckhoff, and D. Buhl. 2005. Evaluating the Impacts of White-Tailed Deer (Odocoileus virginianus) on Vegetation within Pea Ridge National Military Park. U.S. Geological Survey, Northern Prairie Wildlife Research Center. April.
3.143 Cribbs, J. Tyler and David G. Peitz. 2008. White-tailed Deer Monitoring at Pea Ridge National Military Park, Arkansas: 2008 Status Report. Natural Resource Technical Report NPS/HTLN/NRTR—2008/104. National Park Service, Fort Collins, CO
3.144 Peitz, D.G. 2005. White-tailed Deer Monitoring at Pea Ridge National Military Park, Arkansas: 2005-2006 Status Report. Natural Resource Technical Report NPS/MWR/HTLN/NRTR—2006/015. National Park Service, Omaha, NE.
3.145 Michigan Department of Natural Resources (MIDNR). 2013. Epizootic Hemorrhagic Disease (EHD) in White-Tailed Deer. Available at: http://www.michigan.gov/dnr/0,1607,7-153-10370_12150-26647--,00.html. Last accessed: March 22, 2013.
3.146 Dodd, H.R., J.A. Hinsey, and S.K. Mueller. 2011. Fish community monitoring at Pea Ridge National Military Park: 2009 report. Natural Resource Data Series NPS/HTLN/NRDS—2011/217. National Park Service, Fort Collins, CO.
3.147 NPS 2006. Dodd et al. 2011.
3.148 Briggler, Jeff and Melissa Pilgrim. 2001. Final Report: Amphibian and Reptile Survey for Pea Ridge National Military Park. March 9.

been observed in the park in Winton, Pratt, and Lee creeks.[3.149]

The grasslands and forests within the park provide ample habitat for a variety of bird species. Increasingly fragmented landscapes have decreased overall bird habitat within the region surrounding the park due to urban and industrial development.[3.150] According to park staff, more than 100 bird species have been identified in the park, with thirty species identified as regional species of concern. A breeding bird survey conducted in the park in 2008, recorded sixty-three species of breeding birds.[3.151] From the survey, sixteen species found in the park are classified by Partners in Flight as species of continental importance. The species richness for birds in grassland habitat in the park is similar to those reported elsewhere, while the species richness in the woodland habitat was lower than values reported elsewhere. Bird species that commonly nest and breed in the park include scarlet tanagers (*Piranga olivacea*), summer tanagers (*Piranga rubra*), rose-breasted grosbeaks (*Pheucticus ludovicianus*), ovenbirds (*Seiurus aurocapillus*), and various woodland warblers (*Phylloscopus* sp.).[3.152] Wild turkey (*Meleagris gallopavo*) and northern bobwhite quail (*Colinus virginianus*) are also often found in the fields of the park.

3.149 Bowles, David 2013. Aquatic Program Leader, National Park Service through Missouri State University, Department of Biology, email communication to Gregory Eads, National Park Service regarding salamanders that occur in Winton, Pratt, and Lee Creeks. March 29.
3.150 Peitz, D.G. 2009. Bird monitoring at Pea Ridge National Military Park, Arkansas 2008 Status Report. Natural Resource Technical Report NPS/HTLN/NRTR—2009/194. National Park Service, Fort Collins, CO.
3.151 Peitz, D.G. 2009. Bird monitoring at Pea Ridge National Military Park, Arkansas 2008 Status Report. Natural Resource Technical Report NPS/HTLN/NRTR—2009/194. National Park Service, Fort Collins, CO.
3.152 NPCA 2009.

Visual Resources

About ninety percent of the Civil War battlefield where fighting took place is protected within the park.[3.153] Protecting such a large portion of an original battlefield is uncommon among Civil War parks in the national park system, and this protection is essential to the unique visual character of the park. Much of the land that is now protected within the park underwent extensive changes from the time of the battle until the park was established in 1956. Much of the land that now constitutes the park was historically used for agriculture, raising livestock, and homestead sites. These land uses, along with practices of fire suppression and logging, both before and after the battle, have combined to alter the landscape and influence the character of the park relative to its historic appearance.[3.154]

Visual resources on the battlefield are important to the visitor's understanding of the battle events. Visual resources include replica artillery, fencing, and historic structures; and historic fields, roads, and trails. For more information on the visual resources within the cultural and historic context of the park, see Chapter 2 of this report.

The most popular activity for visitors is to travel the seven-mile Tour Road through the park. Guided by the park brochure, visitors can follow the Tour Road and pull over at ten interpretive stops identifying important battle sites. There are several interpretive exhibits, and historic roads, trails, fields, and structures are available for viewing as well.

Over the past eleven years, in an effort to restore the historic landscape that soldiers witnessed during the Civil War battle, the park removed 11,000 feet of power lines

3.153 NPS 2006.
3.154 Ibid.

that were interfering with battlefield views, planted more than 2,000 trees in areas that were forested in 1862, rebuilt seventeen miles of historic fence lines that help to demarcate battle lines, emplaced artillery, and restored five miles of historic roads and road traces. In addition, the park is working to control eastern red cedar trees, which are encroaching on the park's open fields. Wildlife and vegetation also contribute to the visual experience in the park.

Most of the park is protected from outside visual and auditory intrusions. However, there are some modern intrusions in the battlefield landscape, such as the visitor center and administrative area, residential development and associated infrastructure around the perimeter of the park such as cell towers, and Arkansas Highway 72 and U.S. Highway 62, which bisect the western and southern portions of the park, respectively. In general, visitors have several opportunities to visualize the 1862 landscape, despite the absence of the farm structures that existed at the time of the battle. The landscape is generally representative of the historic conditions, although fire prevention and suppression have resulted in an increase in tree density in some areas of the park. This includes denser areas of forest around the battlefields, trenches, and fields; the invasive eastern red cedar species occurring throughout the park; fields that were previously open agricultural fields and crops, currently dominated by introduced grasses; and asphalt around the trenches (placed there circa 1970, in an effort to preserve them). The change in vegetation characteristics has altered views and interpretation of the battlefields and routes, making it somewhat difficult for visitors to visualize how the landscape affected the battle.

Visitor Experience

The park provides visitors with opportunities that enhance their understanding of the Battle of Pea Ridge and its pivotal role in the Civil War west of the Mississippi River.[3.155]

The battlefield within this national park is unique due to the lack of monuments, as the park provides more of a "living landscape." Park visitors have the opportunity to view different areas of the battlefield and the cultural resources associated with the park including historic structures, earthworks, and historic ruins. In addition, the natural resources of the park provide recreational opportunities to visitors, with many visitors coming solely for recreation such as running, hiking, biking, and horseback riding.

The primary visitor experience at the park is centered on interpreting the Civil War battle and the events surrounding the conflicts.[3.156] Interpretation of the events includes interpretive signs and exhibits throughout the park placed at the routes and sites of the battles, Elkhorn Tavern, and Federal earthworks.[3.157] The automobile tour of the park (the Tour Road) is one of the primary interpretive programs of the park (see the Visual Resources section). One tour stop provides an overview of the countryside to the south and another provides an overview of the battle scene near Elkhorn Tavern. A trail follows Telegraph Road in Cross Timber Hollow. Trails follow many of the historic roads within the park. About ten to twenty percent of visitors venture beyond the tour stops. The Tour Road was designed to accommodate a one-way, single lane of automobile, bus, or recreational vehicular traffic. Today, the Tour Road accommodates motorized touring, bicycling, and jogging.

3.155 NPS 2006.
3.156 Ibid.
3.157 NPCA 2009.

The visitor center serves as the primary facility for preparing visitors to understand and appreciate the park.[3.158] The visitor center provides park visitors with an orientation to the park, an opportunity to view a video about the battle, talk with an interpretive ranger, view exhibits about the battle, and purchase Civil War-related literature.[3.159] A museum in the visitor center contains several exhibits and displays more than ninety objects.[3.160] A library of historic documents and books related to the battle is in the visitor center/administrative complex. The library is open to researchers by appointment.[3.161] Interpretive signs are also present along the Trail of Tears, which goes through the park. In 2007, the park provided 328 interpretive programs; however, the park has had to reduce the number of interpretive programs due to a lack of funding.[3.162] In fiscal year 2010, 18,945 visitors attended interpretive programs and demonstrations.[3.163]

The park has nine miles of horse trails and seven miles of hiking trails.[3.164] Some trails are aligned with historic roads or traces. Many visitors bike through the park along the Tour Road. Equestrian staging is in a gravel lot off the two-lane Tour Road. The designated equestrian trail passes through the western part of the battlefield, then proceeds around the north side of Elkhorn Mountain to Elkhorn Tavern, and then along Telegraph Road back to the staging area.

In addition to the annual anniversary of the battle event (March 7 and 8), other special events are held each year (when funding allows) such as the Hispanic Heritage Festival, Elkhorn Tavern 1860 Christmas, and the June Festival.[3.165] Living history demonstrations are conducted throughout the year, primarily at Elkhorn Tavern. The cannon programs are popular with visitors, with demonstrations occurring throughout the year.

Visitation in fiscal year 2012, was 131,907, the highest amount of visitors in the last five years.[3.166] Visitation has fluctuated between 61,000 and 131,000 since 1976.[3.167] Visitation is highest from May through August, with another peak in October. School groups visit the park primarily in April and May. Approximately forty to fifty military groups come to the park per year.[3.168] Based on staff observations, the average stay in the park is one to three hours.

Park Operations

The park grounds and visitor center are open seven days a week. The visitor center is closed Thanksgiving Day, Christmas Day, and New Year's Day. It is open for all other federal holidays.

3.158 NPCA 2009.
3.159 NPS 2006.
3.160 NPCA 2009.
3.161 NPS 2006.
3.162 NPCA 2009.
3.163 Ibid.
3.164 National Park Service (NPS). 2011. Pea Ridge National Military Park - Long-Range Interpretive Plan. December.
3.165 National Park Service (NPS). 2011. Pea Ridge National Military Park - Long-Range Interpretive Plan. December.
3.166 National Park Service (NPS). 2012b. National Park Service Visitor Use Statistics - Annual Park Visitation (All Years) Report for Pea Ridge National Military Park. Available at: https://irma.nps.gov/Stats/SSRSReports/Park Specific Reports/Annual Park Visitation (All Years)?Park=PERI.
3.167 National Park Service (NPS). 2012b. National Park Service Visitor Use Statistics - Annual Park Visitation (All Years) Report for Pea Ridge National Military Park. Available at: https://irma.nps.gov/Stats/SSRSReports/Park Specific Reports/Annual Park Visitation (All Years)?Park=PERI.
3.168 NPCA 2009.

Park staff currently consists of the following full-time positions (fifteen total):

- Superintendent and one law enforcement ranger;
- Administrative Officer and two administrative assistants in the division of administration;
- Facility Manager, two maintenance employees, and custodian in the division of facilities management;
- Chief of Resource Management, a biologist, and a laborer in the division of resource management;
- Chief of Interpretation and two park guides in the division of visitor services and resource protection;
- Volunteers in Parks - across all divisions to help augment park staff.

The Long-Range Interpretive Plan identified additional park staffing needs in order to conduct important activities within the park including interpretation programs, visitor services, and a survey of the park's boundaries.[3.169]

The visitor center provides orientation and key visitor services, including museum exhibits, as well as office space for some staff and the primary maintenance area.[3.170] Park entrance fees are collected at the visitor center. Park staff has converted two former residences for use as office space. An additional maintenance area is used for equipment and materials storage. A new maintenance facility is planned for the park; however, a location for the facility has yet to be determined. The Federal Trenches are not contiguous with the rest of the park but are open to the public.

Current management and vegetation maintenance in the park includes thinning open woodlands, planting trees, implementing the Exotic Pest Management wing existing grassland areas, conducting prescribed burns, and reestablishing orchards at Elkhorn Tavern.

3.169 NPS 2011.
3.170 NPS 2006.

Chapter 4. Treatment Alternatives

Introduction

This chapter presents the treatment alternatives considered to provide for the repair, protection and stewardship of the Pea Ridge National Military Park cultural landscape. These treatment alternatives were developed during the Alternatives Work Session on November 6 and 7, 2013. A no action alternative and three action alternatives were identified.

All action alternatives would address the protection of resources, improvements to visitor experience and access, and provisions for future research. The action alternatives would follow a rehabilitation approach for the cultural landscape, but would differ in the extent of modifications proposed. Each would address rehabilitation by preserving known contributing features, and by revealing the patterns, circulation system, and features that existed at the time of the battle.

- **Alternative 1: Investigating and Preserving the Battle Landscape** would focus on research and identification of non-extant features. These features and the relationships between them would be revealed through unobtrusive means. The repair and maintenance of extant features would be included.

- **Alternative 2: Revealing the Battlefield Landscape (Preferred Alternative)** would address the same level of research and identification of features as Alternative 1. This alternative would assertively identify non-extant features through the use of markings, 'ghosting' or other similar means. The delineation of historic spaces and patterns would be the focus of this treatment.

- **Alternative 3: Reconstructing the Battle Scene** would build upon the research and investigation noted in the other action alternatives. This alternative would focus on more intensive identification of known features. These actions would include three-dimensional markings to reestablish spatial qualities.

This chapter describes the no action and three action alternatives. The description of the no action alternative is presented first, followed by treatment recommendations that apply to all action alternatives. This is followed by a description of each action alternative.

No Action Alternative

The no action alternative provides a basis for comparison with the action alternatives, including the preferred alternative. Under the no action alternative, the present level of use, management, interpretation, maintenance and operations would continue. As identified in the GMP/EIS, the no action alternative would include the following actions.

Under the no action alternative, U.S. Highway 62 would be relocated and mitigation would be undertaken as per the U. S. Highway 62 Mitigation Plan.

The existing visitor center / administration complex would remain until a new facility could be built. The sites of existing buildings would be repaired after the facilities were removed. This repair would include the abandonment of some utilities with rehabilitation of these areas to a condition that would reflect the historic setting.



Figure 4-1. View from Elkhorn Mountain, looking west toward Round Top (Source: MB 2013).

In accordance with the GMP/EIS, a new visitor center/facility would be built on the west edge of the park. As part of the visitor center relocation, adjustments would be made to the Tour Road to provide access to and from the new facilities.

The recommendations for treatment of vegetation within the study area, identified by the Vegetation Management Plan (VMP), would be followed.

Common to All Action Alternatives

Each action alternative would address the rehabilitation of the cultural landscape. Those patterns and features that are essential components of the cultural landscape would be preserved as they convey an authentic setting that would have existed at the time of the battle. Treatment under each action alternative would differ in the degree to which modifications would be made, i.e. the extent to which non-extant features would be made visible and marked.

Several treatment recommendations are common to all action alternatives. These actions are presented in this section, but are not repeated in the individual descriptions of each alternative.

1. A new visitor center / facility complex would be located on the west edge of the park as recommended by the GMP/EIS. The complex would be located north of Leetown Hamlet, accessed by Old Leetown Road. This would become the relocated / rerouted Highway 72.

2. The existing visitor center complex would remain for the short-term. It would be screened to visually minimize its impact on the historic battlefield using strategically placed trees and a native understory. The complex was built in the 1960s, as part of the Mission 66 program, and would be evaluated by NPS-MWRO to determine its significance to this period. Repair of the site after the facilities are removed would include abandoning some utilities, and rehabilitating this area to a condition similar to the historic setting.

3. Arkansas Highway 72 would be rerouted outside the park boundaries in compliance with the GMP/EIS recommendations. This would assist in the rehabilitation of the cultural landscape and in reestablishing the historic agrarian setting.

4. U.S. Highway 62 would be relocated to the park's southern boundary. The park entry and parking at the visitor center would be modified as would the Tour Road, parking at Elkhorn Tavern, and the horse trailhead. These modifications would follow the preferred alternative for the mitigation of the highway relocation. A restroom facility may be part of the new parking at Elkhorn Tavern.

5. Pedestrian and equestrian uses would be allowed on historic circulation routes with maintenance actions tailored to manage these uses. Bicycle use would be prohibited on historic routes.

6. The horse trail would remain as a park amenity and would be managed according to best practices. The horse trail may follow historic circulation routes when feasible with maintenance actions tailored to manage this use.

7. Resources associated with the Trail of Tears would be included with the repair of Telegraph Road as it was an important historic event. This importance relates to the road's inception in the 1830s, and its role as part of the northern route of the Trail of Tears.

8. Mass grave sites from the Battle of Pea Ridge would be identified and preserved through historical research and non-intrusive archeological techniques.

9. Cross Timber Hollow via Telegraph Road would offer an important 'back country' experience, accessible by foot or horse with maintenance actions tailored to use. Further research and investigations would be conducted to identify connections between the tanyard and Van Dorn to determine the role, if any, the tanyard had with the battle.

10. Further research and investigations would be conducted for hospital site(s) noted on historic maps of the battle. These maps indicate several hospital sites in Cross Timber Hollow and other locations within the park.

11. At Winton Springs, historical research would be conducted to define extant features in existence at the time of the battle (potentially foundations, remnants, spring houses, roads). Extant features that date from the period of significance would be stabilized. The existing road and gravel area would be retained and reconfigured for park use.

12. The three commemorative monuments would be preserved and repaired. The setting of the two commemorative monuments at Elkhorn Tavern would be rehabilitated to reflect the 1880s appearance and to allow for pedestrian access. The setting of the 1930s monument would be preserved.

13. Non-contributing features not needed for functional purposes or that detract from the historic setting would be removed.

14. The recommendations of the Vegetation Management Plan (VMP) would be followed for the study area. Recommendations for sites identified by the VMP for inclusion in the CLR/EA: Ford Farm, Winton Springs, Leetown Hamlet, Elkhorn Tavern / Williams Hollow, and Federal Trenches would be treated as recommended in this CLR/EA.

15. The natural systems of the Pea Ridge cultural landscape, including the natural drainages of the park, would be preserved and maintained. These drainages include Lee Creek, the South Branch of Winton Spring, and the seasonal drainages of Cross Timber and Williams hollows. The vegetation of these waterways would be maintained in a native state to convey the historic setting and to protect stream banks and channels from excessive cutting and erosion.

Alternative 1: Investigating and Preserving the Battle Landscape

Alternative 1 would undertake further research and investigations needed to accurately convey the historic setting, particularly at each landscape character area. Preservation and repair of extant contributing features would be undertaken.

This alternative would focus on preservation, stabilization, and repair of extant features. The research and identification of extant below-grade features would be a focus of this alternative. Spaces and relationships between non-extant features would be reestablished. This alternative would reveal historic spaces and landscape patterns using the simplest approaches with the least amount of modifications.

Alternative 1 would provide a sense of the scale and space of the landscape setting that existed at the time of the battle. Extant features such as roads and the rebuilt historic fences would be preserved. Contributing features would be stabilized and repaired but no additional elements would be added.

The focus of this alternative would be on additional research and further investigations to understand the appearance of the landscape during the period of significance.

Archeological Sites

Archeological investigations and further research would be undertaken to assist in defining the extent of the historic setting of the Battle of Pea Ridge.

1. Additional information about potential extant below-grade features and the accurate locations of buildings, structures and roads that existed at the time of the battle would be the focus of research and investigations.

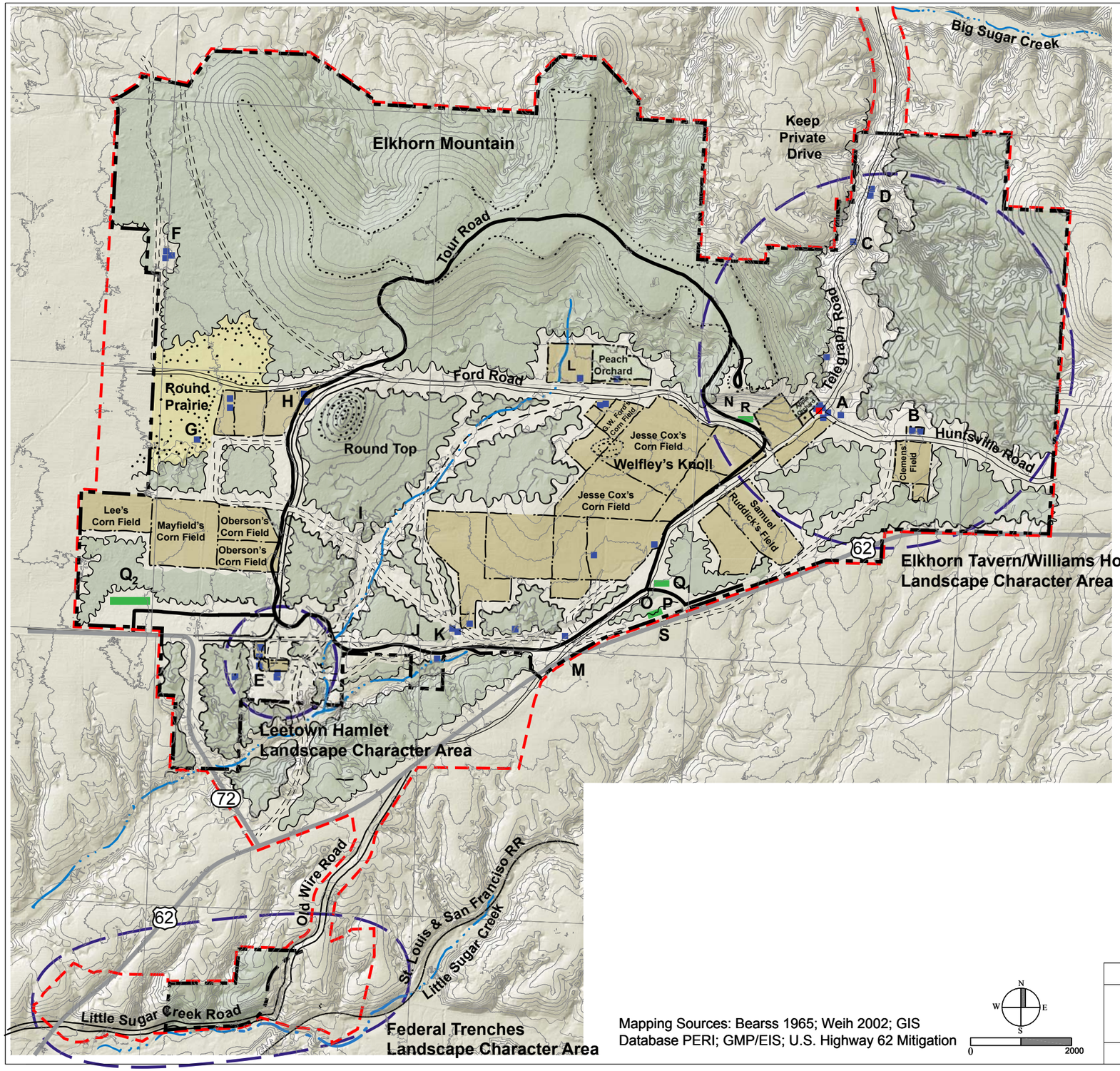
    a. Actions could include some limited ground disturbance.

2. Within the Ford Farm, archeological investigations would be undertaken to define the extent of the farm's pastures and fields, and to locate below-grade remnants of historic buildings, structures or other features.

3. Within Leetown Hamlet, archeological investigations would be undertaken to define the extent of the historic town setting, to confirm the existence of historic features, and to identify the size, scale and form of these features.

4. At the Federal Trenches, the full extent of the trench and all its 'parts or components' would be identified through archeological investigations and research into Civil War construction practices.

5. Within Elkhorn Tavern, the full extent of fields, pastures, the orchard, and buildings and structures would be identified through archeological investigations and further research.



Legend

- PARK BOUNDARY
- STUDY AREA BOUNDARY
- ROAD
- TOUR ROAD
- HISTORIC ROAD: MAJOR ROAD
- HISTORIC ROAD: TRACE
- HISTORIC ROAD: TRAIL
- WORM FENCE
- HISTORICAL / ARCHEOLOGICAL RESOURCE
- NPS FACILITIES / PARKING
- ELKHORN TAVERN
- PRAIRIE
- FIELDS/PASTURES
- ORCHARD
- WOODLANDS
- OPEN FOREST - ALONG ROADS

Places

A	Elkhorn Tavern
B	Clemens' Farm
C	Tanyard
D	Unidentified
E	Leetown Hamlet
F	Amos J Patterson
G	Wiley Foster
H	Sturdy Cabin
I	Log Cabin (Morgan's Woods)
J	Winton Springs House
K	J. Ruddick
L	Ford Farm / Ford Cemetery
M	Pratt's House / Store
N	NPS East Overlook
O	NPS Maintenance
P	NPS Administrative
Q_1	NPS Visitor Center - Existing
Q_2	NPS Visitor Center - Proposed
R	NPS Parking
S	NPS Horse Trail Parking

Mapping Sources: Bearss 1965; Weih 2002; GIS Database PERI; GMP/EIS; U.S. Highway 62 Mitigation

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Figure 4-2.

AUGUST 2014	TITLE OF PROJECT: CULTURAL LANDSCAPE REPORT AND ENVIRONMENTAL ASSESSMENT
UNITED STATES DEPARTMENT OF THE INTERIOR PEA RIDGE NATIONAL MILITARY PARK	TITLE OF DRAWING: ALTERNATIVE 1 - INVESTIGATING AND PRESERVING THE BATTLE LANDSCAPE
	NAME OF PARK: PEA RIDGE NATIONAL MILITARY PARK
	REGION: MIDWEST; COUNTY: BENTON; STATE: ARKANSAS

PERI 409 125967

Spatial Organization

The sense of the scale and patterns of the historic setting and individual spaces that existed at the time of the battle would be identified as described in archeological sites. These historic spaces would be reestablished using simple techniques.

1. The physical depiction of historic spaces and their relationships to one another would be undertaken.

2. The size, scale and form of each space would be established and marked using simple means.

    a. Techniques including the use of vegetation and the simple markings of known features would be undertaken.

    b. Worm fencing set along historic fence alignments would continue to be used to delineate historic spaces.

    c. Vegetation management would continue to assist in depicting spatial qualities. This would include the use of grasses in settlement or built areas, surrounded by woodlands, as existed historically.

3. The historic space of the Ford Farm would be reestablished to include fields, pastures, orchard and Ford Cemetery. The historic space would be reestablished based upon further historic and archeological investigations.

    a. Mowing, mechanical removal or addition of vegetation would be used to reestablish the spatial qualities.

4. The historic spaces of Leetown Hamlet would be reestablished, and would include the spaces of individual ownership or farms and agricultural spaces that likely surrounded the town.

5. The historic setting of Elkhorn Tavern would be reestablished to reflect the ten to twenty-acre area noted in solider accounts.

    a. The use of vegetation, (forest, open fields, battlefield, views) and fencing set along historic alignments would be used to depict the spatial qualities of the Elkhorn Tavern area.

    b. Extant features, the building and roads, would be preserved to assist in defining historic spatial relationships.

Circulation

The historic circulation system would be preserved. It would be repaired where it would be used for pedestrian or equestrian routes. Modifications would be undertaken to better integrate the contemporary roads and trails with the historic circulation system.

1. All historic road routes and alignments would be preserved.

    a. Pedestrian and equestrian use would be allowed on historic roads with maintenance tailored to the use.

    b. The park loop trail and the horse trail could be moved to follow historic routes.

    c. Repairs would be made as needed to control erosion, repair surfaces and to provide for intended use.

2. At the Federal Trenches, the existing pedestrian trail would be repaired to provide a safe route.

    a. The trail surface would be repaired using steps, erosion control measures and new surfacing. The trail would be

rerouted to the extent possible to provide a more manageable slope for the walking route.

b. No universal access to the trenches would be provided.

Buildings and Structures

Existing buildings and structures consist primarily of park facilities and the historic reconstructed Elkhorn Tavern.

Future buildings would include a new visitor center / facility complex proposed for the west edge of the park in accordance with the GMP/EIS.

Known below-grade foundations throughout the park would be further researched to determine actual locations, size, scale and form.

1. Archeological research and investigations would be undertaken to identify the historic locations of buildings and structures.

    a. Those buildings and structures confirmed to have an association with the historic setting during the period of significance would be documented. Where appropriate some could be marked to indicate their location size, scale and form.

    b. Techniques for marking buildings and structures could include the use of contrasting material such as gravel or a change in vegetation type within the foundation, or the delineation of a foundation using stones or wood framing.

2. At the east overlook, the shelter would remain. Its presence would be minimized by repainting the structure to make it less visible from the battlefield. This would be done in tandem with the removal of cedar trees that currently provide a backdrop.

3. Elkhorn Tavern would be preserved and repaired. Non-extant buildings and structures would be marked, this would be based on archeological work previously mentioned.

4. At the Federal Trenches, preservation and stabilization of the trench structure would be undertaken. It would include the entire trench and all of its components.

Vegetation

Extant vegetation and vegetative patterns that contribute to the historic character of the cultural landscape would be preserved. Vegetation that assists in defining spatial organization or that frames views and vistas would be preserved and managed.

Historic vegetation patterns would be reestablished using species and species compositions similar to what occurred historically. Recommendations of the Vegetation Management Plan (VMP) would be followed for the study area.

1. The historic patterns of the agricultural fields would be preserved and reestablished to fully reflect the historic conditions. Vegetation that assists in depicting pastures and crops from 1862 would be used.

2. Historic trees that date from the period of significance would be preserved. Measures to fully locate historic trees within the study area would be undertaken.

3. Existing trees, such as invasive cedars, that negatively impact the historic vegetation patterns would be removed.

4. At the east overlook, vegetation management would assist in revealing the historic landform, topography and character of the bluff. Large trees would be removed, and others would be thinned and pruned.

5. At the Federal Trenches, large trees would be removed from the trench. Dense forested areas within historic lines of sight towards the south would be thinned.

6. At Elkhorn Mountain, large trees would be removed and others thinned and pruned to reveal the landform, topography and character of the bluff on Elkhorn Mountain.

    a. The presence of the existing shelter would be minimized by removing the cedar backdrop. This would be done in tandem with repainting the shelter.

Alternative 2: Revealing the Battlefield Landscape (Preferred Alternative)

This alternative would reveal the landscape that soldiers and civilians experienced during the Battle of Pea Ridge in 1862 and through 1865.

Alternative 2: Revealing the Battlefield Landscape (Preferred Alternative) would be accomplished by reestablishing the spatial qualities of the historic setting. Extant contributing features would be preserved and repaired and non-extant features that existed at the time of the battle would be identified and marked.

The personal stories of the inhabitants (farm owners, families, slaves, etc.) and accounts from the soldiers would be researched. Opportunities for interpretation of the battle landscape, the influence the battle had on the community, experiences of the soldiers, and the aftermath of the war would be provided.

Further archeological investigations and research would be undertaken, particularly at key sites (e.g., Leetown Hamlet, Elkhorn Tavern). Investigations would focus on identifying below-grade remnants of historic buildings, structures, roads and other features that would have been present at the time of the battle.

The spatial relationships and views of the physical setting would be reestablished through the removal and thinning of vegetation, and repair and use of the historic circulation system. This alternative would focus on the preservation, stabilization and repair of features. Compatible additions and uses would be allowed.

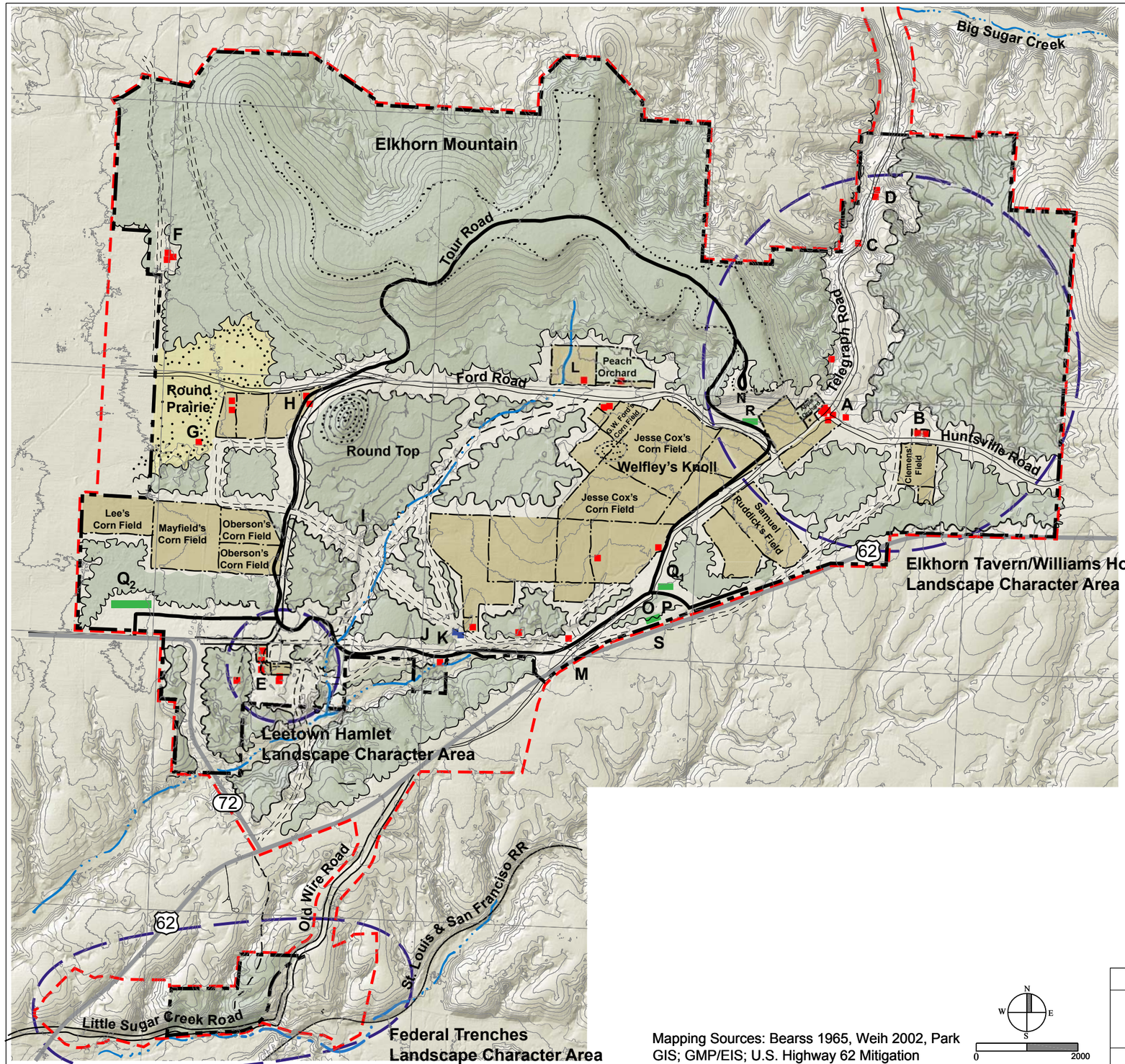
Archeological Sites

Further archeological investigations and research would be undertaken at key sites (e.g., Leetown Hamlet, Elkhorn Tavern). Investigations would focus on identifying below-grade remnants of historic buildings, structures, roads and other features that would have been present at the time of the battle.

1. Archeological investigations and further research would be undertaken to fully define the physical extent of the historic setting.

2. Archeological investigations would determine extent of historic farm spaces such as pastures, gardens and barnyards that would have been a part of the landscape historically but are no longer visible.

3. Additional research would be undertaken to further understand individual families and residents that lived in the battle area.



Legend

- PARK BOUNDARY
- STUDY AREA BOUNDARY
- ROAD
- TOUR ROAD
- HISTORIC ROAD: MAJOR ROAD
- HISTORIC ROAD: TRACE
- HISTORIC ROAD
- FENCE: HISTORIC ALIGNMENT
- MARK OUTLINE (non-extant bldg or structure)
- STABILIZED BUILDING FOUNDATION
- NPS FACILITIES / PARKING

- PRAIRIE
- FIELDS/PASTURES
- ORCHARD
- WOODLANDS
- OPEN FOREST - ALONG ROADS

Places

A	Elkhorn Tavern
B	Clemens' Farm
C	Tanyard
D	Unidentified
E	Leetown Hamlet
F	Amos J Patterson
G	Wiley Foster
H	Sturdy Cabin
I	Log Cabin (Morgan's Woods)
J	Winton Springs House
K	J. Ruddick
L	Ford Farm / Ford Cemetery
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Q_1	NPS Visitor Center - Existing
Q_2	NPS Visitor Center - Proposed
R	NPS Parking
S	NPS Horse Trail Parking

Mapping Sources: Bearss 1965, Weih 2002, Park GIS; GMP/EIS; U.S. Highway 62 Mitigation

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Figure 4-3.

PERI 409 125967

AUGUST 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
PEA RIDGE NATIONAL MILITARY PARK

TITLE OF PROJECT
CULTURAL LANDSCAPE REPORT
AND ENVIRONMENTAL ASSESSMENT
TITLE OF DRAWING
ALTERNATIVE 2: REVEALING THE BATTLEFIELD LANDSCAPE
NAME OF PARK
PEA RIDGE NATIONAL MILITARY PARK

REGION	COUNTY	STATE
MIDWEST	BENTON	ARKANSAS

Spatial Organization

The spatial relationships and views of the physical setting would be reestablished through removal and thinning of vegetation, and repair of the historic circulation system. This alternative would focus on the preservation, stabilization and repair of features. Compatible additions and uses would be allowed.

1. The historic spatial organization of the cultural landscape would be reestablished to reflect the appearance of the landscape in 1862: agricultural use with farms, houses, gardens, barnyards, pastures, fields and fences.

2. The three-dimensional character of the landscape would be reestablished by delineating the spaces and relationships that existed at the time of the battle. Techniques would be simple markings of known features, maintaining fence lines, and preserving and repairing contributing features.

3. The use of new non-historic worm fences to delineate historic fence alignments would continue. Fences that resemble the historic worm fence would be used along historic alignments.

4. The historic spatial arrangement would be reestablished by maintaining fields and pastures as open areas contrasted by the dense, enclosed spaces of the surrounding woodlands. The spaces associated with the battle would be preserved as they existed at the time of the battle.

5. After archeological research has confirmed the locations of non-extant buildings present at the time of the battle, they would be identified visually.

Topography and Landform

The topography and landform of the cultural landscape would be preserved and measures would be undertaken to convey the significance of these features to the battle.

1. The existing topography and landform of the Federal Trenches would be preserved. The sense of the contrast between the high bluffs overlooking the valley floor would be preserved. The physical form of the bluffs would be revealed through clearing of undergrowth vegetation. The landforms associated with other potential battle-related trenches would be further investigated to identify extant remains or landforms.

2. The topography and landform of Elkhorn Mountain / Williams Hollow would be preserved and measures would be undertaken to convey the significance of this feature to the battle.

Views and Vistas

The views and vistas that were integral to the Battle of Pea Ridge would be restored. Others that convey the setting and feeling of the landscape present during the period of significance would be reestablished.

1. Measures to preserve or restore historic views and vistas to and from Elkhorn Mountain would be undertaken, including those from Elkhorn Tavern towards Welfley's Knoll (the battlefield), Elkhorn Mountain and Cross Timber Hollow, and towards Telegraph Road.

2. Views and vistas within, and of, open fields and pastures associated with the battlefield would be preserved and restored to emphasize the view of the battle as it was experienced by the soldiers.

3. Views that assist in interpreting the battlefield from the Tour Road and tour stops would remain.

4. The visitor center would be made less visible from the battlefield. Native vegetation would screen the building. Views towards the battlefield would remain. The new visitor center would be sited to be visible from relocated Highway 72.

5. At the Federal Trenches, the view from the top of the bluffs and the trench would be repaired to reflect historic views and vistas.

Circulation

In this alternative, the circulation system would use historic routes for pedestrian use, and equestrian use when applicable/feasible, and would be repaired to reflect the historic alignment and width. Existing roads and a few additions would provide bicycle and vehicular use. Historic road routes and alignments would be identified and preserved. The major historic roads would be preserved and repaired to convey the major circulation routes that existed at the time of the battle.

1. Some modifications would be made to the Tour Road to better preserve the historic site. Roads in use in 1862 would be preserved and fully researched and investigated. Roads built after 1865 and not needed for park functions would be removed.

2. Non-contributing circulation routes and features that do not serve a park function would be removed, including roads built after 1865, county roads built in the 1940s, and contemporary roads. Short segments could remain where they provide a park function.

3. The Tour Road would remain the primary vehicular route. It would be slightly modified to minimize impacts on the historic battlefield and to function with the future visitor center. The Tour Road and parking area would be rerouted away from the core historic setting of Elkhorn Tavern. All existing paving and trails would be removed including the flagstone walkway, stone wall and seating. Tour stops would remain with the exception of those modified for the new vehicular route.

4. Temporary mown paths would access the battlefield and other historic spaces including routes from Ford Road with access to the battlefield, Ford's Farm, and Welfley's Knoll.

5. Universal accessibility may be provided to Elkhorn Tavern, east overlook, and Leetown Hamlet.

6. A pedestrian and equestrian trail may be built to connect the to the Federal Trenches.

Buildings and Structures

Contemporary buildings that provide park functions, including those built as part of the Mission 66 program—visitor center, administration office, maintenance buildings, and east overlook would remain. The only extant building or structure associated with period of significance is the reconstructed Elkhorn Tavern. Other buildings and structures from the time of the battle are no longer standing.

This alternative would identify and mark non-extant buildings present at the time of the battle to reflect the agricultural community of farms at that time. Archeological research and investigations would be undertaken to identify historic locations, and sizes.

1. A new visitor center / facility complex would be completed on the west edge of the park as recommended by the GMP/ EIS. The existing visitor center / facility complex would be screened to minimize its presence within the historic setting.

2. The Federal Trenches would be further researched and documented to determine the full extent of the trench and all of its components. Research would reveal how the trench was built and how its construction related to that of other Civil War fortifications. The extant trench and components would be preserved and stabilized according to best practices. A portion of the trench would be fully restored to convey the original construction.

3. Elkhorn Tavern would be preserved and repaired.

4. Two monuments, added in the 1880s, to commemorate the soldiers of the two battles remain, and will be preserved and repaired.

Vegetation

The vegetation patterns within the park would be reestablished to visually represent the historic patterns of fields, pastures, and farm spaces surrounded by woodlands and forests that would have existed during 1862. Vegetation within the study area would be guided by the Vegetation Management Plan (VMP).

1. Further research would be undertaken to identify plant species associated with each historic space. Trees within historic spaces planted for interpretation would be allowed to remain.

2. Vegetation on Elkhorn Mountain would be modified in areas associated with the battle to better reflect the character of the landform and vegetation patterns that existed during the 1862 battle.

3. The vegetation of the Federal Trenches would be reestablished to reflect the influence the Union troops had on the natural vegetation just prior to the battle. The hillsides on the front side of the bluffs, between the trench and the valley below, may be thinned and large trees removed.

4. The vegetation patterns that existed at the time of the battle would be reestablished, as identified by the Vegetation Management Plan. These included identified locations for crops in fields and pastures, garden(s), orchards and the surrounding hardwood forest. The patterns of the historic agricultural spaces would be reestablished using similar or in-kind species.

Alternative 3: Reconstructing the Battle Scene

This alternative would focus on accurately conveying the historic setting of the Battle of Pea Ridge to closely resemble what the fighting soldiers witnessed.

Extant contributing features would be repaired to reflect their historic appearance. Preservation and repair of the spatial qualities of the historic site would be undertaken. The non-extant features that existed at the time of the battle would be marked as extensive three-dimensional representations.

Further archeological investigations and research would be undertaken, particularly at key sites (e.g., Leetown Hamlet, Elkhorn Tavern) to identify below-grade remnants of buildings, structures, and roads.

Alternative 3 would closely follow the recommendations of the GMP / EIS to provide access to the Federal Trenches from the north.

Archeological Sites

Archeological investigations and further research would be undertaken to assist in defining the extent of the historic features and setting of Pea Ridge.

1. Research and investigations would focus on gaining additional information about potential extant below-grade features. Accurate locations of buildings, structures and roads that existed at the time of the battle would be determined.

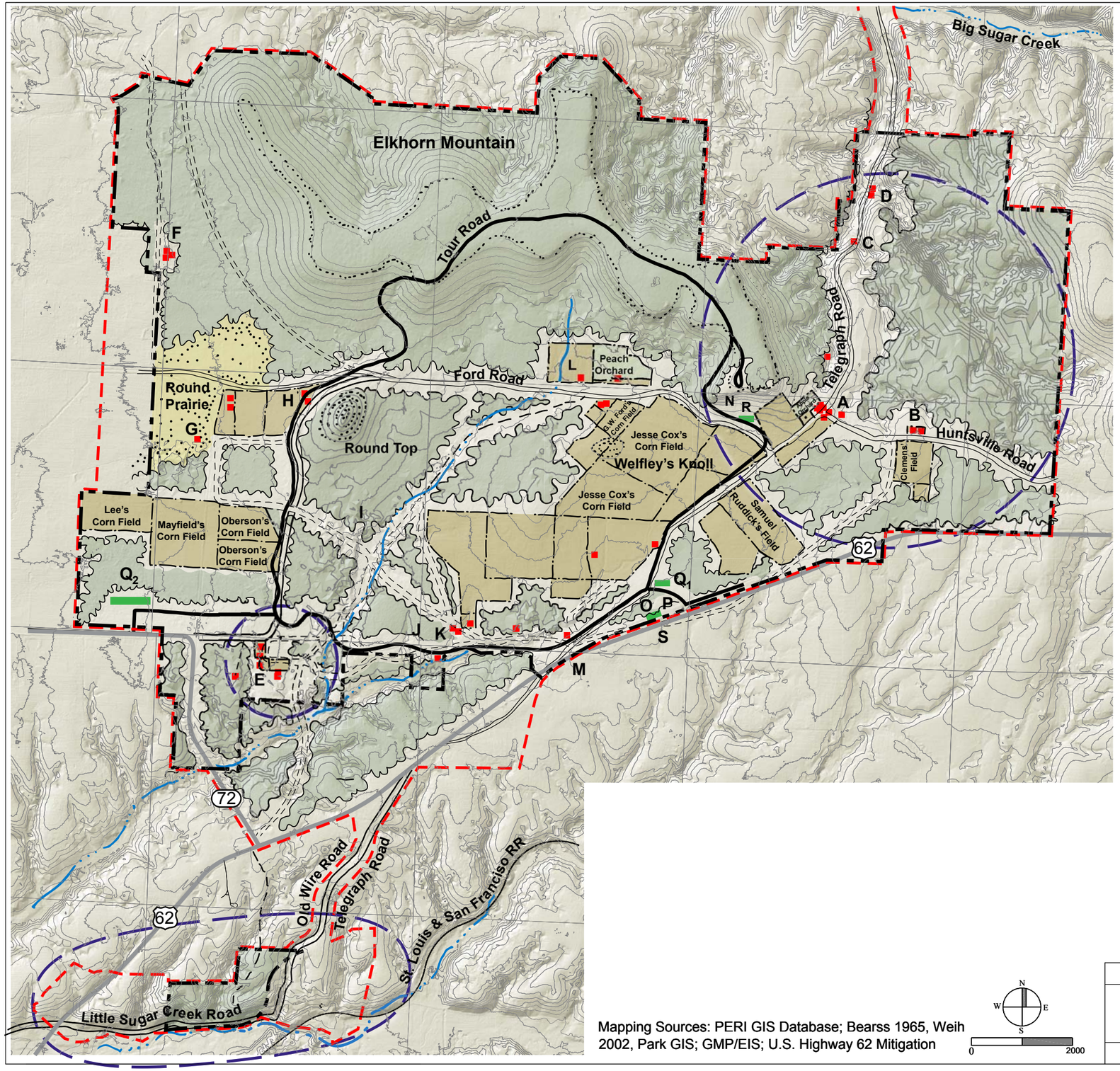
    a. Actions could include limited ground disturbance and excavations.

2. At Leetown Hamlet, archeological investigations would determine the extent of the town settlement and the surrounding land use.

3. At the Federal Trenches, investigations would determine the full extent of the trench and would identify all components. Further research would include review of similar Civil War fortifications.

4. At Elkhorn Tavern, archeological investigations would be undertaken to determine the full extent of the farm, Clemens' House and barn site, the hospital site, and the tanyard.

5. Further research would be undertaken to identify the full extent of the hospital sites that existed at the time of battle.



Legend

- PARK BOUNDARY
- STUDY AREA BOUNDARY
- HIGHWAY
- TOUR ROAD
- HISTORIC ROAD: MAJOR ROAD
- HISTORIC ROAD: TRACE
- HISTORIC ROAD: TRAIL
- FENCE: HISTORIC ALIGNMENT
- MARKING & GHOSTING
- NPS FACILITIES / PARKING

- PRAIRIE
- FIELDS/PASTURES
- ORCHARD
- WOODLANDS
- OPEN FOREST - ALONG ROADS

Places

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B	Clemens' Farm
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O	NPS Maintenance
P	NPS Administrative
Q_1	NPS Visitor Center - Existing
Q_2	NPS Visitor Center - Proposed
R	NPS Parking
S	NPS Horse Trail Parking

Mapping Sources: PERI GIS Database; Bearss 1965, Weih 2002, Park GIS; GMP/EIS; U.S. Highway 62 Mitigation

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Figure 4-4.

PERI 409 125967

AUGUST 2014	TITLE OF PROJECT: CULTURAL LANDSCAPE REPORT AND ENVIRONMENTAL ASSESSMENT
UNITED STATES DEPARTMENT OF THE INTERIOR PEA RIDGE NATIONAL MILITARY PARK	TITLE OF DRAWING: ALTERNATIVE 3 - RECONSTRUCTING THE BATTLE SCENE
	NAME OF PARK: PEA RIDGE NATIONAL MILITARY PARK
	REGION: MIDWEST; COUNTY: BENTON; STATE: ARKANSAS

Spatial Organization

The spatial qualities of the historic setting would be reestablished through the delineation of historic spaces such as fields and pastures. Marking or ghosting missing features would be undertaken to further convey the three-dimensional qualities of the battlefield. Vegetation would be managed to more fully convey the historic scale and patterns.

1. Historic spaces would be reestablished to the greatest extent possible. The spaces would be repaired to reflect the scale, patterns and form, and three-dimensional quality of the landscape at the time of the battle. The relationships between historic spaces would be reestablished.

    a. Historic spaces would be reestablished through fields, forests, and building and structures.

    b. The extent of agricultural fields and individual components would be clearly defined, based on historical documentation.

2. The size, scale and form of each individual space would be established and marked. The spatial organization would be more clearly defined by the three-dimensional marking of missing buildings and structures.

    a. Techniques such as the use of vegetation and fencing to delineate historic spaces would be undertaken. Worm fencing, set along historic fence alignments would continue to be used to mark the boundaries of historic farms.

    b. Vegetation management would continue to assist in depicting spatial qualities.

    c. Distinct farm spaces and the landownership of individual farm holdings would be made apparent by defining individual farms through reconstruction of buildings, fences, and vegetation types in fields.

3. The historic space of the Ford area would be reestablished and would include fields, pastures, orchard, and Ford Cemetery.

    a. Markings for the house, barns and outbuildings would convey the three-dimensional qualities.

4. The historic spaces of Leetown Hamlet would be reestablished. These would include the spaces of individual ownership or farms and agricultural spaces that likely surrounded the town.

5. The historic spaces of the Federal Trenches would be reestablished as a more open fortification area on the top of the bluffs with a hillside of thinned vegetation. This would be contrasted by the lower open valley to the south.

6. The historic setting of Elkhorn Tavern would be reestablished to reflect the ten to twenty-acre area noted in solider accounts.

    a. The use of vegetation (forest, open fields, battlefield, views) and fencing set along historic alignments would be used to depict the spatial qualities of the Elkhorn Tavern area.

    b. Extant features (building and roads) would be preserved to assist in defining historic spatial relationships.

    c. Markings for barns and outbuildings at Elkhorn Tavern, and for the Clemens' House and barn(s) would convey the three-dimensional qualities of the historic setting.

7. Known extant features would be preserved including below-grade remnants.

Circulation

The historic road system would be preserved and repaired to closely reflect the 1862 appearance in width and character. Modifications would be undertaken to better integrate the contemporary roads and trails with the historic circulation system.

1. All historic roads and routes would be preserved and repaired to reveal the extent and character of the circulation network that existed at the time of the battle.

    a. Pedestrian and equestrian use would be allowed on historic roads with maintenance tailored to use.

    b. The park loop trail and horse trail would be rerouted to follow historic routes. All contemporary trails would be eliminated and restored to their natural condition.

2. Telegraph, Ford, and Huntsville roads would be preserved and repaired along their historic alignments, and would reflect their historic widths and surfaces.

    a. Once the Tour Road is rerouted at the base of Elkhorn Mountain, Telegraph Road would be restored in this section.

        - This would be done in accordance with standards for the historic Trails of Tears network.

        - This route would allow visitors to follow in the footsteps of those traveling the Trail of Tears.

3. Leetown Road, the south section of Lee Creek Road, Foster's Lane, Oberson Road and South Road would be preserved and repaired.

4. A pedestrian trail connection would be made at the north edge of the park at Telegraph Road within Cross Timber Hollow. This would be a new access from Lime Kiln Road.

    a. This would provide a route for visitors to experience the park from the perspective of the Confederate soldier, as many ascended the steep hollow to Elkhorn Tavern.

5. A new vehicular access would be built for the Federal Trenches. This new route would arrive from the north along a new park road, connected to U.S. Highway 62.

    a. The new access would include a visitor parking area to the north of the trench. From this location a universally accessible pedestrian path would connect to the trench.

    b. This route would require coordination with private property owners through an easement agreement or possible land acquisition.

    c. The existing parking area and path would be removed.

    d. This route is in accordance with the recommendations of the GMP/EIS.

Buildings and Structures

All extant contributing buildings and structures would be preserved. Archeological investigations and further research would be undertaken to identify and confirm locations and remnants of non-extant buildings and structures known to have been present at the time of the battle. Elkhorn Tavern would be preserved and repaired. The existing visitor center and park facilities would remain until new facilities are built per the GMP/EIS.

1. The full extents of buildings and structures would be identified by further investigations at the Ford Farm, Leetown Hamlet, and Elkhorn Tavern / Williams Hollow.

    a. Buildings and structures determined to have an association with the battle would be marked as three-dimensional representation.

    b. Techniques would include the use of wood or stone foundations or frames, three-dimensional features at building corners or three-dimensional 'ghostings' of the mass and scale of the feature.

    c. These buildings and structures would include the Ford house(s), barn(s), outbuildings, Elkhorn Tavern barn(s) and outbuildings, and Clemens' House and barn(s).

    d. As other historic buildings and structures are discovered that post-date the period of significance, these would be marked with a simple three-dimensional element. Historic foundations or remnants would be preserved.

2. Non-contributing buildings or structures would be removed. For sites where the function is to remain, these features would be reestablished to be non-intrusive. For sites where the function is no longer needed, new buildings and structures would be located away from the battlefield or sensitive areas.

    a. The east overlook would be redesigned as an open air terrace, set into the hillside so as not be visible from below. The existing shelter would be eliminated. The site and structure would be documented according to NPS HALS standards since the area was built as part of the Mission 66 program.[1] The overlook would continue to provide visitors with a panoramic view of the battlefield.

    b. The visitor center / facility complex would be relocated to the west side of the park as recommended by the GMP/EIS.

3. Elkhorn Tavern would be reconstructed to reflect the 1862 appearance using documentation and first-hand accounts.

    a. A historic structures report would be undertaken to determine the extent of historic fabric, to evaluate condition, and to recommend repair and potential uses.

    b. If adequate documentation exists, the reconstruction of the blacksmith shop and barn(s) could occur.

4. The two commemorative monuments would be preserved and repaired.

1 HALS is the Historic American Landscape Survey.

Vegetation

Extant vegetation and vegetation patterns that contribute to the historic character would be preserved. The historic vegetation patterns would be reestablished using species and species composition similar to that which existed historically. Recommendations of the VMP would guide vegetation management for the study area.

1. The historic patterns of the agricultural spaces contrasted by wooded forests would be preserved and reestablished to more fully reflect the historic conditions.

    a. Vegetation that assists in depicting pastures and crops that would have existed in 1862, would be used (i.e. tall grasses could convey a cornfield or a corn crop could be grown where feasible and where visible to the visitor).

    b. A mown lawn would be maintained at Ford Cemetery.

2. Historic trees would be preserved. Further research and investigations would be undertaken to fully identify all historic trees within the park.

    a. Historic trees will be identified, documented and managed by locality. Management would include actions that minimize damage to, and/or prolong the life of historic trees, except where they become a safety hazard or threaten other trees.

3. Trees that reflect historic tree patterns or arrangements would be allowed to remain. The orchards would be modified based on further research and investigations.

    a. The peach orchard at Ford's Farm would remain.

    b. The apple orchard at Elkhorn Tavern would remain.

        - It would be repaired to reestablish its historic size and number of trees. Once the Tour Road is removed, the full extent of the historic orchard would be fenced.

        - Historic varieties of apple trees would be planted in a configuration and pattern similar to what existed historically, with an additional 42 trees planted.2

4. Non-native, invasive trees such as cedar trees would be removed according to the VMP.

5. Vegetation would be thinned and large trees removed in areas where natural topography and landform contributed to the battle.

    a. At the east overlook, the rock outcropping on Elkhorn Mountain would be fully revealed once vegetation changes were made.

    b. At the Federal Trenches, vegetation would be cleared to reestablish the historic view from the trench to the valley below. The vegetation on the hillside would be thinned and large trees removed to more closely resemble the slope created by the Union troops.

2 VMP, 112.

Alternatives Comparison

A comparison of the alternatives and the degree to which each alternative fulfills the goals of the proposed project is summarized in Table 4-1.

Mitigation

The NPS places strong emphasis on avoiding, minimizing, and mitigating potentially adverse environmental impacts. To help ensure the protection of natural and cultural resources and the quality of the visitor experience, the following protective measures would be implemented as part of the preferred alternative (Table 4-2). The NPS would implement an appropriate level of monitoring throughout the construction process to help ensure that protective measures are being properly implemented and are achieving their intended results.

TABLE 4-1. ALTERNATIVES COMPARISON

Meets Project Purpose, Need, and Objectives?			
No Action Alternative	**Alternative 1 Investigating and Preserving the Battle Landscape**	**Alternative 2 Revealing the Battlefield Landscape (preferred)**	**Alternative 3 Reconstructing the Battle Scene**
The no action alternative would not fulfill the project purpose or objectives. The goals of documenting resources, conveying the historic character of the cultural landscape, and improving visitor understanding would not be met. Current levels of resource deterioration would continue.	Alternative 1 partially fulfills the project objectives. Research and investigations would be undertaken to document cultural landscape resources. The alternative would provide an authentic experience, but would not fully convey the complete landscape setting that existed at the time of the battle. Extant features would be preserved, stabilized and repaired but no additional elements would be added to completely reveal the full story.	Alternative 2 meets the project purpose and objectives by conveying the historic setting by preserving and repairing extant contributing features and marking locations of non-extant features. Vegetation management would be used in some areas to depict the spatial qualities of the cultural landscape. Research and investigations would be undertaken.	Alternative 3 meets the project purpose and objectives in ways similar to Alternative 2. It would provide a more immersive visitor experience by reconstructing non-extant buildings and recreating portions of non-extant landscapes. Research and investigations would be undertaken.

TABLE 4-2. MITIGATION MEASURES AND BEST MANAGEMENT PRACTICES GENERAL MEASURE

General Measures
• The park would ensure the project remains within the treatment limits and parameters established in the compliance documents and that mitigation measures are properly implemented. • Temporary signage would be placed at approach points of implementation zones to alert visitors of mechanical treatments. No implementation activities would be permitted outside these limits. • All protection measures would be clearly stated in the project specifications/special project requirements, and workers would be instructed to avoid conducting activities beyond the project limits as defined by implementation plans or marked limits. • Garbage, trash, and other solid waste associated with project operations would be disposed of weekly, or sooner if warranted, outside the park. • All tools, equipment, barricades, signs, surplus materials, and rubbish would be removed from the project work limits upon project completion. • Contractors would be required to properly maintain equipment used on the project (e.g., mufflers) to minimize noise from equipment use. • All equipment used on the project would be maintained in a clean and well-functioning state to avoid or minimize contamination from mechanical fluids. All equipment would be checked daily. • BMPs for drainage and sediment control, in accordance with a Stormwater Erosion and Sediment Control Plan, would be implemented to prevent or reduce nonpoint source pollution and minimize soil loss and sedimentation in drainage areas, when needed. Use of BMPs in the project area for drainage area protection would include all or some of the following actions, depending on site-specific requirements: ◊ Keeping disturbed areas as small as practicable to minimize exposed soil and the potential for erosion ◊ Locating waste and excess excavated materials outside of drainages to avoid sedimentation ◊ Installing silt fences, temporary earthen berms, temporary water bars, sediment traps, stone check dams, or other equivalent measures (including installing erosion-control measures around the perimeter of stockpiled fill material) prior to implementation ◊ Conducting regular site inspections during the implementation period to ensure erosion-control measures were properly installed and are functioning effectively ◊ Storing, using, and disposing of chemicals, fuels, and other toxic materials in a proper manner
Soils
• Erosion and sediment control would be required (see the "General Measures" section above). • If applicable, topsoil or native soil would be removed from areas of implementation and stored for later reclamation use. The topsoil would be redistributed as near the original location as possible and supplemented with scarification, mulching, seeding, and/or planting with native genotypes.

Vegetation
• Orange construction fencing or other highly visible methods for identification would be used around large and historic trees within project limits to minimize the potential for inadvertent impacts from heavy equipment during implementation. Large nontarget trees would be avoided to the extent possible during implementation. • Temporary barriers may be provided to protect existing trees, plants, and root zones not proposed for removal. Trees or other plants would not be removed, injured, or destroyed without prior approval. • Ground surface treatment would include grading to natural contours, conserving and replacing topsoil, and, where necessary, hand seeding or planting. In some locations, topsoil placement and mulching with litter and duff would be the primary treatment. If insufficient litter and duff is salvaged from the project area, additional litter and duff may be gathered from adjacent areas on a small scale where approved by the NPS. • Remedial actions would include installing erosion-control structures, reseeding, conserving and replacing topsoil and/or replanting the area, and controlling nonnative plant species. • Introduction of nonnative/noxious plant species would be minimized by implementing several BMPs, including: ◊ Minimizing soil disturbance ◊ Ensuring project personnel make daily checks of clothing, boots, laces, and gear to ensure no invasive plant propagates and no off-site soil is transported to the worksite ◊ Pressure washing and/or steam cleaning all equipment to ensure all equipment and machinery are cleaned and weed free before entering the park; equipment used on the project would be inspected by park staff prior to entering the park to ensure compliance with cleanliness requirements and inadequately cleaned equipment would be rejected ◊ Covering all haul trucks bringing fill materials from outside the park to prevent seed transport and dust deposition along the road corridor ◊ Limiting vehicle parking turnouts to existing roads, parking lots, or access routes ◊ Limiting project staging to existing roads, parking turnouts, and other designated areas; no machinery or equipment should access areas outside the project limits ◊ Obtaining all fill, rock, or other earth materials from the project area, if possible ◊ Restricting hay bales from being used during revegetation or for temporary erosion control ◊ Initiating revegetation of disturbed sites immediately following implementation activities • To maximize vegetation restoration efforts after completion of implementation activities, the following measures would be applied: ◊ Salvaging available topsoil or the top several inches of native soil from project areas for reuse during restoration of disturbed areas ◊ Incorporating native litter and duff layer in forested sites for replacement over salvaged topsoil ◊ Ensuring the NPS surveys for, and treats, invasive plants prior to and three years after implementation and in accordance with the Exotic Pest Management Plan ◊ Until established, protecting/avoiding areas previously revegetated during park-prescribed burns (in accordance with the Fire Management Plan)

Wetlands
• Impacts on wetlands would be avoidable. No wetland fill would occur without authorization from the Corps and appropriate permitting under the Clean Water Act. • Appropriate permits (404 permit and 401 certification) would be acquired should there be any impacts on wetlands.
Water Quality
• Sediment traps, erosion checks, and/or filters would be constructed above or below all culvert drains (if such drains are required) and in all other ditches before the water (runoff) leaves the project limits. • At all cut and fill areas, erosion and sediment control would be implemented to minimize impacts on water quality. • Surface restoration and revegetation of disturbed soils would be implemented to minimize long-term soil erosion.
Wildlife
• To reduce noise disturbance and limit impacts on breeding avian and mammalian species, all tree removal would be conducted from October 1 to March 1, where feasible. If trees need to be removed outside of this time frame, they would be identified for removal and evaluated for nesting or roosting use. • Project personnel are prohibited from feeding or approaching wildlife. • Project personnel would report to park personnel any wildlife collisions within 24 hours of an incident. • The clearing limits (project limits) outside of the existing road prism would be clearly marked or flagged prior to implementation. All implementation activities, including staging areas, would be located within previously disturbed areas, if necessary. • The following measures would be taken to limit noise and disturbance from vehicles and equipment used on the project: ◊ All motor vehicles and equipment would have mufflers conforming to original manufacturer specifications that are in good working order and are in constant operation to prevent excessive or unusual noise, fumes, or smoke. ◊ Use of air horns within the park would be limited to emergencies only.
Air Quality
• Workers would not leave vehicles idling. • Debris resulting from implementation would be hauled from the park to an appropriate disposal location. • Visitors would be asked to not idle their vehicles while waiting during potential traffic delays.

Cultural Resources
• All activities would comply with the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (48 FR 44716, revised). • Cultural resource surveys would be undertaken in areas of proposed treatment that involve ground disturbance where surveys have not been previously conducted (either exploratory shovel testing or metal detection surveys). • Cultural resources that have not been assessed for listing on NRHP would be evaluated and a determination of eligibility obtained. • Archeological resources in the vicinity of the project area would be identified and delineated for avoidance prior to project work. • Should any archeological resources be uncovered during implementation, as appropriate, work would be halted in the area and a NPS archeologist, SHPO, and appropriate Native American tribes would be contacted for further consultation. Plans for treatment of unanticipated discoveries would be prepared as needed. • NPS cultural resources staff would be available during implementation to advise or take appropriate actions should any archeological resources be uncovered during implementation. In the unlikely event that human remains are discovered during implementation, provisions outlined in the Native American Graves Protection and Repatriation Act (1990) would be followed. • The NPS would ensure that all contractors, subcontractors, and lessees are informed of the penalties for illegally collecting artifacts or intentionally damaging archeological sites or historic properties. Contractors, subcontractors, and lessees also would be instructed on procedures to follow in case previously unknown archeological resources are uncovered during implementation. • Equipment and material staging areas would avoid known archeological resources.

Environmentally Preferable Alternative

The environmentally preferable alternative is the alternative identified in a record of decision, that causes the least damage to the biological and physical environment and best protects, preserves, and enhances historic, cultural, and natural resources (40 CFR 1505.2(b)). 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 (43 CFR 46.30).

Although an environmentally preferable alternative is identified, it may not be the NPS preferred alternative. The preferred alternative is the alternative the NPS believes would best fulfill its statutory mission and responsibilities, giving consideration to economic, environmental, technical, and other factors.

While the no action alternative would maintain existing conditions and levels of maintenance, it would not be considered the environmentally preferable alternative because it would not meet environmental goals in the same manner as the action alternatives. Although it would not result in new disturbance to natural resources, the no action alternative would not preserve important cultural landscapes as well as the action alternatives because of the continued gaps in knowledge of the cultural landscape and presence of overgrown vegetation. The no action alternative would not meet the goals and objectives of the project, which include rehabilitating the cultural landscape to protect cultural landscape features and to better convey the historic character of Pea Ridge NMP. The no action alternative is not the environmentally preferable alternative because the other alternatives better protect, preserve, and enhance historic, cultural, and natural resources.

Alternatives 1, 2, and 3 each provide somewhat similar environmental advantages. They differ in the extent of cultural landscape preservation and treatment that will reveal patterns and features that existed at the time of the battle. Alternative 1 would have the least effect on the landscape, but would not preserve or convey the appearance of the landscape during the period of significance as well as the other action alternatives. Alternative 3 would have the highest level of reconstruction and changes to existing conditions, but would also have the greatest effect on natural resources. Alternative 2 would provide the best balance between the preservation of historic and cultural resources and the protection of the natural resources within the park; for this reason, Alternative 2 is the environmentally preferable alterative.

Impact Summary

A summary of potential environmental effects for the alternatives is presented in Table 4-3.

TABLE 4-3. IMPACT SUMMARY

Impact Topic	No Action Alternative	Alternative 1	Alternative 2 (preferred)	Alternative 3
Cultural Resources	The deterioration of some cultural landscape features under the no action alternative would result in parkwide, moderate, long-term, adverse effects on cultural resources. The cumulative effects would be parkwide moderate and adverse.	Alternative 1 would have parkwide moderate long-term beneficial effects on cultural resources by restoring some aspects of the cultural landscape and stabilizing and preserving some cultural landscape features. Alternative 1 would have local moderate beneficial cumulative effects on cultural resources.	Alternative 2 would have a local moderate long-term beneficial effect on cultural resources by restoring some aspects of the cultural landscape and gathering archeological data from investigation. Alternative 2 would have local moderate beneficial cumulative effects on cultural resources.	Alternative 3 would have a local moderate long-term beneficial effect on cultural resources by rehabilitating the Pea Ridge landscape to closely resemble what the fighting soldiers witnessed. Alternative 3 would have beneficial cumulative effects on cultural landscapes.
Vegetation	Because vegetation health in the park would slightly improve over time, the no action alternative would have parkwide long-term minor beneficial effects on vegetation. Cumulative effects would be parkwide, moderate, and beneficial.	Under Alternative 1, the minor modifications in existing vegetation management in the landscape character areas would result in local, long-term, minor, beneficial effects on vegetation. Cumulative effects would be parkwide, moderate, and beneficial.	Alternative 2 would include modifications to vegetation in the landscape character areas that would have local minor long-term beneficial effects. Cumulative effects would be parkwide, moderate, and beneficial.	Alternative 3 would include modifications to vegetation in the landscape character areas that would have local minor long-term beneficial effects. Cumulative effects would be parkwide, moderate, and beneficial.

Impact Topic	No Action Alternative	Alternative 1	Alternative 2 (preferred)	Alternative 3
Wildlife	The effects from the no Action alternative on wildlife and wildlife habitat would occur over a long period and would not likely cause a decrease in wildlife populations. The no action alternative would result in both beneficial and adverse parkwide long-term minor impacts on wildlife. Cumulative impacts on wildlife would be both beneficial and adverse, parkwide, and minor.	Because the effects on wildlife and wildlife habitat under Alternative 1 would be indistinguishable from those of the no action alternative, Alternative 1 would have both beneficial and adverse parkwide long-term minor impacts on wildlife. Cumulative impacts on wildlife would be both beneficial and adverse, parkwide, and minor.	Because the effects on wildlife and wildlife habitat under Alternative 2 would be indistinguishable from those of the no action alternative, Alternative 2 would have both beneficial and adverse parkwide long-term minor impacts on wildlife. Cumulative impacts on wildlife would be both beneficial and adverse, parkwide, and minor.	Because the effects on wildlife and wildlife habitat under Alternative 3 would be indistinguishable from those of the no action alternative, Alternative 3 would have both beneficial and adverse parkwide long-term minor impacts on wildlife. Cumulative impacts on wildlife would be both beneficial and adverse, parkwide, and minor.

Impact Topic	No Action Alternative	Alternative 1	Alternative 2 (preferred)	Alternative 3
Visitor Experience	The natural and man-made changes that have altered the park from its 1862 appearance would not be substantially managed or changed under the no action alternative. These current and continuing changes would lead to a reduced interpretation value and visitor understanding of the Battle of Pea Ridge. As a result, the no action alternative would have parkwide long-term minor adverse impacts on visitor experience because. The no action alternative would have parkwide moderate beneficial and minor adverse cumulative impacts on visitor experience.	The additional knowledge and understanding of the cultural landscape of the park and select preservation, stabilization, and repair of extant features would have a parkwide long-term minor beneficial effect on visitor experience. Cumulative effects of Alternative 1 would be parkwide, moderate, and beneficial and parkwide minor and adverse.	More accurately depicting the historic character of the park during the period of significance under Alternative 2 would have parkwide long-term moderate beneficial effects on visitor experience. Cumulative effects of Alternative 2 would be parkwide, moderate, and beneficial and parkwide, minor, and adverse.	More accurately depicting the historic character of the park during the period of significance under Alternative 3 would have parkwide long-term moderate beneficial effects on visitor experience. Cumulative effects of Alternative 3 would be parkwide, moderate, and beneficial and parkwide, minor, and adverse.

Impact Topic	No Action Alternative	Alternative 1	Alternative 2 (preferred)	Alternative 3
Park Operations	Current maintenance and operation activities would continue under the no action alternative. The continued cultural landscape management actions would result in the continued deterioration in cultural resources, interpretation, and education value of the park, which would result in a parkwide long-term minor adverse impact on park operations by preventing park staff from being able to adequately convey the Battle of Pea Ridge. Cumulative effects on park operations would be parkwide, minor, and adverse.	The additional knowledge and understanding of the cultural landscape of the park and select preservation, stabilization, and repair of extant features would have parkwide long-term minor beneficial and adverse effects on park operations. Cumulative effects of Alternative 1 would be parkwide, minor, and beneficial and parkwide minor and adverse.	The focus of Alternative 2 would be on depicting the spatial qualities of the historic setting during the period of significance, which would have parkwide long-term minor beneficial and adverse effects on park operations. Cumulative effects of Alternative 2 would be parkwide, minor, and beneficial and parkwide minor and adverse.	The focus of Alternative 3 would be on rehabilitating the Pea Ridge landscape to closely resemble what the fighting soldiers witnessed, which would have parkwide long-term minor beneficial and adverse effects on park operations. Cumulative effects of Alternative 3 would be parkwide, minor, and beneficial and parkwide minor and adverse.

Impact Topic	No Action Alternative	Alternative 1	Alternative 2 (preferred)	Alternative 3
Visual Resources	Under the no action alternative, the visual character of the cultural landscape would not be substantially changed. Views of the battlefield would not accurately convey the historic character of cultural landscape during the period of significance. As a result, the no action alternative would have a parkwide long-term minor adverse effect on visual resources of the park.	The additional knowledge and understanding of the cultural landscape of the park and select preservation, stabilization, and repair of extant features would have a parkwide long-term minor beneficial effect on visitor experience. Cumulative effects of Alternative 1 would be parkwide, moderate, and beneficial and parkwide minor and adverse.	More accurately depicting the historic character of the park during the period of significance under Alternative 2 would have parkwide long-term moderate beneficial effects on visual resources. Cumulative effects of Alternative 2 would be parkwide, moderate, and beneficial and parkwide, minor, and adverse.	More accurately visually depicting the historic character of the park during the period of significance under Alternative 3 would have parkwide long-term moderate beneficial effects on visual resources. Cumulative effects of Alternative 3 would be parkwide, moderate, and beneficial and parkwide, minor, and adverse.

Chapter 5. Environmental Consequences

Introduction

This chapter provides a description of both beneficial and adverse impacts to the resources described in chapter 4 that would result from implementing any of the alternatives considered in this CLR/EA. This chapter also includes methods used to analyze direct, indirect, and cumulative impacts. Impacts are evaluated based on context, duration, intensity, and whether they are direct, indirect, or cumulative. It is organized by impact topics that were derived from internal park and external public scoping. A summary of the environmental consequences for each alternative is provided in Table 3, which can be found in *Chapter 4: Treatment*.

This CLR/EA assesses whether significant impacts would occur as a result of the proposed action or reasonable alternatives, resulting in an environmental impact statement (EIS), or whether a finding of no significant impact (FONSI) is the appropriate decision document.

General Methods

This section contains the environmental impacts, including direct and indirect effects, and their significance for each alternative. The analysis is based on the assumption that the mitigation measures identified in the "Mitigation" section of this CLR/EA would be implemented for the action alternatives. Overall, the NPS based these impact analyses and conclusions on the review of existing literature and park studies; information provided by experts within the park and other agencies; professional judgment and park staff insights; and public input.

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 methods are described under each impact topic.

The following terms are used in the discussion of environmental consequences to assess the impact intensity threshold and the nature of impacts associated with each alternative.

Context: Context is the setting within which an impact would occur, such as local (landscape character area); parkwide (Pea Ridge National Military Park); or regional (Benton County, Arkansas).

Duration: Duration of impact is analyzed independently for each resource because impact duration is dependent on the resource being analyzed. Depending on the resource, impacts may last for the construction period, a single year or growing season, or longer. For purposes of this analysis, impact duration is described as short-term or long-term. Impact duration is defined in a table for each resource topic.

Type: Effects can be beneficial or adverse. Beneficial effects are positive changes in the condition or appearance of the resource or a change that moves the resource toward a desired condition. Adverse effects are negative changes in the condition or appearance of the resource or a change that moves the resource away from a desired condition.

Direct and Indirect Impacts: Effects can be direct, indirect, or cumulative. Direct effects are caused by an action and occur at the same time and place as the action. Indirect effects are caused by the action and occur

later or farther away, but are still reasonably foreseeable. Direct and indirect impacts are considered in this analysis, but are not specified in the narratives. Cumulative effects are discussed in the next section.

Threshold for Impact Analysis: The duration and intensity of effects vary by resource. Therefore, the definitions for each impact topic are described separately. These definitions were formulated through the review of existing laws, policies, and guidelines; and with assistance from park staff and regional NPS staff. Impact intensity thresholds for negligible, minor, moderate, and major adverse effects are defined in a table for each resource topic.

Impact Intensity: This refers to the severity of impact. Impact intensity is defined individually for each impact topic. There may be no impact, or impacts may be negligible, minor, moderate, or major. 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 will 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, park lands, prime farmlands, wetlands, 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 NRHP 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.

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 above and is described as negligible, minor, moderate, or major. Intensity factors that do not apply to a given resource topic and/or alternative are not discussed.

Cumulative Effects

Cumulative impacts are defined as "the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or nonfederal) or person undertakes such other actions" (40 CFR 1508.7). Cumulative effects can result from individually minor, but collectively significant, actions taking place over a period of time. The CEQ regulations that implement NEPA require assessment of cumulative impacts in the decision-making process for federal projects.

Methods for Assessing Cumulative Effects

Cumulative impacts were determined by combining the impacts of each action alternative and the no action alternative with other past, present, and reasonably foreseeable future actions. Past actions include activities that influenced and affected the current conditions of the environment near the project area. Ongoing or reasonably foreseeable future projects near the park or the surrounding region might contribute to cumulative impacts. The geographic scope of the analysis includes actions in the landscape character areas as well as other actions in the park or surrounding lands, where overlapping resource impacts are possible. The temporal scope includes actions within a range of approximately 10 years.

Once identified, past, present, and reasonably foreseeable actions were then assessed in conjunction with the impacts of the alternatives to determine if they would have any added adverse or beneficial effects on a particular resource, park operation, or visitor use. The impacts of past, present, and reasonably foreseeable actions vary for each resource. Cumulative effects are considered for each alternative and are presented in the environmental consequences discussion for each impact topic.

Past, Present, and Reasonably Foreseeable Actions

The following past, present, and reasonably foreseeable actions are relevant to the analysis of the effects on resources and values that would result from the alternatives, and are based on actions described in the GMP/EIS. No other reasonably foreseeable actions were identified in the vicinity of the project area that would potentially contribute to cumulative effects.

Vegetation and Wildlife Management

Past, present, and reasonably foreseeable actions regarding management of vegetation by the NPS includes various management techniques such as planting seedlings, restoring the orchards and prairie, mowing and haying operations, and exotic species management. Nonnative plant species have spread throughout the park and the spread of nonnative species would likely continue in the future. The NPS has managed, and continues to manage through its EPMP, vegetation to control invasive and noxious plant species in the park. The NPS has also instituted a WUI plan to reduce hazardous fuels and trees and has implemented prescribed burning under its Fire Management Plan (FMP). These management activities will continue in the future. The park has installed 15 miles of split-rail fence (with an additional 1.5 miles planned), reopened and incorporated historic roads into its trail system, and reopened a segment of the Trail of Tears.

U.S. Highway 62 Improvements

As discussed in Chapter 1: Purpose and Need, Arkansas State Highway and Transportation Department is proposing to widen Highway 62 from two lanes to four lanes from Avoca to Gateway. A portion of Highway 62 runs along the southern boundary of the park and would be rerouted outside (south) of the park boundary as part of this project. The existing

Highway 62 would be reduced to a two-lane road within the park boundary and would be used for park access. The reduction in lanes would involve heavy equipment to remove the asphalt, regrade the soils, and revegetate the areas that were previously asphalt.

Residential Development

Increased residential development around the park has been occurring and is likely to continue into the future, which may affect park resources.

Cultural Resources

Methodology

The following effects analysis for cultural resources is based on three general site types found within the park – archeological sites (both historic and prehistoric); the built environment (buildings, structures, roads, and monuments); and the cultural landscape (a geographic area associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values). The following discussion of effects is generalized based on the type of ground disturbance associated with the treatment recommendations and the type of cultural resource. The effects on cultural resources are only considered for historic properties or those cultural resources listed or eligible for listing on NRHP. Short-term impacts on cultural resources were considered to be those impacts that would last only during the implementation period, while long-term impacts would be impacts that last beyond the implementation period.

The resource-specific context for assessing impacts of the alternatives on cultural resources includes:

- Preservation and protection of historic structures associated with the Battle of Pea Ridge are key to the park's mission and enabling legislation.
- The ability of the landscape elements to fully represent the 1862 Battle of Pea Ridge.
- Protection of archeological resources that have been found in the area related to the 1862 Battle of Pea Ridge.
- Protection of archeological resources at the park and in the surrounding area that signify a national event (the Civil War).
- Protection of prehistoric archeological resources that have been found in the park.

The thresholds of change for the intensity of an impact on cultural resources are defined in Table 5-1.

TABLE 5-1. CULTURAL RESOURCES IMPACT AND INTENSITY

Impact Intensity	Intensity Description
Negligible	Impacts would be at the lowest level of detection with neither adverse nor beneficial consequences.
Minor	Alteration of a pattern(s) or feature(s) of historic properties would not diminish the overall integrity of the resource.
Moderate	Alteration of a pattern(s) or feature(s) of the historic properties would diminish the overall integrity of the resource.
Major	Alteration of a feature(s) of historic properties would diminish the overall integrity of the resource.

Environmental Consequences

No Action Alternative

Direct and Indirect Impacts of the Alternative. Under the no action alternative, the park would continue current levels of vegetation and cultural resource management. The current condition of the vegetation does not accurately represent the battlefield landscape and alters and partially obscure views in some areas of the battlefield. The historic and visual character of the cultural landscape would continue to not be fully conveyed. Vegetation encroachment and weathering would continue to deteriorate some cultural landscape features such as Leetown Hamlet. As a result, the no action alternative would have parkwide long-term moderate adverse effects on cultural resources.

Cumulative Impacts. Reasonably foreseeable future actions include implementing the vegetation management plan, which includes techniques such as tree and vegetation thinning, mowing, haying, planting, and seeding; implementing the EPMP to control invasive and noxious plant species; and implementing the FMP through prescribed burning to reduce hazardous fuels and trees. These actions have the potential to affect known and unknown historic properties from the construction of fire containment lines, mechanical impacts on surface artifacts, and soil erosion measures. The relocation of Highway 62 would likely indirectly improve the cultural landscape by moving the highway away from the park, thereby decreasing visual disturbances. Present and future residential and commercial development surrounding the park would directly adversely affect the cultural landscape by diminishing the landscape setting and backdrop of the battle. When combined with past, present, and reasonably foreseeable future actions, the no action alternative would have the potential for parkwide moderate adverse cumulative effects on historic properties.

Conclusions. The deterioration of some cultural landscape features under the no action alternative would result in parkwide, moderate, long-term, adverse effects on cultural resources. The cumulative effects would be parkwide moderate and adverse.

Alternative 1: Investigating and Preserving the Battle Landscape

Direct and Indirect Impacts of the Alternative. Under Alternative 1, limited vegetation management would restore some aspects of the cultural landscape by reestablishing views; clearing trees and dense vegetation from landscape character areas; and providing indications of the location of non-extant structures. Some extant contributing features would be preserved and repaired. Archeological investigation would add to the knowledge and understanding of cultural resources in the park. These activities would improve cultural resources in the park and would have local moderate long-term beneficial effects.

Cumulative Impacts. As described under the no action alternative, overall, past, present, and reasonably foreseeable actions would result in local moderate adverse effects. With the beneficial contribution from Alternative 1, cumulative effects on cultural resources and would be local, moderate, and beneficial.

Conclusions. Alternative 1 would have parkwide moderate long-term beneficial effects on cultural resources by restoring some aspects of the cultural landscape and stabilizing and preserving some cultural landscape features. Alternative 1 would have local moderate beneficial cumulative effects on cultural resources.

Alternative 2: Preferred Alternative, Revealing the Battlefield Landscape

Direct and Indirect Impacts of the Alternative. Alternative 2 includes most elements of Alternative 1, but would also focus on depicting the spatial qualities of the historic setting of 1862. Alternative 2 would rehabilitate historic circulation patterns, identify and mark sites and locations of non-extant features, and depict the mass, form, and scale of certain non-extant features. These activities would improve the cultural resources in the park and would have a local moderate long-term beneficial effect on the cultural resources.

Cumulative Impacts. As described under the no action alternative, overall, past, present, and reasonably foreseeable actions would result in local moderate adverse effects on cultural resources. With the beneficial contribution from Alternative 2, cumulative effects on cultural resources and would be local, moderate, and beneficial.

Conclusions. Alternative 2 would have a local moderate long-term beneficial effect on cultural resources by restoring some aspects of the cultural landscape and gathering archeological data from investigations. Alternative 2 would have local moderate beneficial cumulative effects on cultural resources.

Alternative 3: Reconstructing the Battle Scene

Direct and Indirect Impacts of the Alternative. Similar to Alternative 2, Alternative 3 would include vegetation management that would restore elements of the cultural landscape, but vegetation management under Alternative 3 would be more extensive. More trees and dense vegetation would be removed from landscape character areas and more views would be reestablished. Alternative 3 may include treatments such as reconstructing a non-extant building or recreating a portion of the non-extant landscape. This alternative would require the most change to the existing cultural landscape; however the changes would have a local moderate long-term beneficial effect on cultural resources.

Cumulative Impacts. As described under the no action alternative, overall, past, present, and reasonably foreseeable actions would result in local moderate adverse effects on cultural resources. Alternative 3 would contribute local moderate long-term beneficial cumulative effects on cultural resources.

Conclusions. Alternative 3 would have a local moderate long-term beneficial effect on cultural resources by rehabilitating the Pea Ridge landscape to closely resemble what the fighting soldiers witnessed. Alternative 3 would have beneficial cumulative effects on cultural landscapes.

Vegetation

Methodology

For each alternative, the effects on vegetation in the landscape character areas were analyzed to determine the potential to change the ecological functions of existing vegetation communities. Potential effects on vegetation were evaluated based on the existing vegetation and the natural or human-based processes sustaining them within the landscape character areas. Potential effects associated with implementing the vegetation management plan are addressed under cumulative impacts. Short-term impacts on vegetation were considered to be those impacts that would last less than two years, while long-term impacts would be impacts lasting more than two years. Resource-specific context for assessing impacts of the alternatives on the proposed vegetation includes:

- The contribution of vegetation to the visitor experience within the park and the visitor's understanding of the 1862 Battle of Pea Ridge.
- Potential for establishing the proposed vegetation communities considering existing and future geographic, climatic, and other conditions.
- The potential short-term and long-term effects on the overall health of the ecosystems of the park and surrounding lands.

The thresholds of change for the intensity of an impact on vegetation are defined in Table 5-2.

TABLE 5-2. VEGETATION IMPACT AND INTENSITY

Impact Intensity	Intensity Description
Negligible	The impacts on vegetation (individuals or communities) would not be measurable. The abundance or distribution of individuals would not be affected or would be slightly affected. The effects would be on a small scale and no species of special concern would be affected. Ecological processes and biological productivity would not be affected.
Minor	The action would not necessarily decrease or increase the project area's overall biological productivity. The alternative would affect the abundance or distribution of individuals in a localized area, but would not affect the viability of local or regional populations or communities. Mitigation to offset adverse effects, including special measures to avoid affecting species of special concern, would be required and would be effective. Mitigation may be needed to offset adverse effects, would be simple to implement, and would likely be successful.
Moderate	The action would result in effects on some individual native plants and also would affect a sizeable segment of the species' population over a large area. Permanent impacts would occur to native vegetation, but in a relatively small area. Some special status species also would be affected. Mitigation measures would be necessary to offset adverse effects and would likely be successful.
Major	The action would have considerable effects on native plant populations, including special status species, and would affect a large area within and outside the park. Extensive mitigation measures to offset the adverse effects would be required; and the success of the mitigation measures could not be guaranteed.

Environmental Consequences

No Action Alternative

Direct and Indirect Impacts of the Alternative. Under the no action alternative, current management activities would continue to establish healthy landscapes that have a varying degree of similarity to the 1862 landscape, although the pace of these activities would depend on available funding. The impacts would vary depending on the existing landscape types, as well as the specific activities proposed. Land-disturbing activities associated with vegetation management may increase the likelihood for the introduction or spread of exotic species or noxious weeds. Because healthy landscapes would slowly be established, the no action alternative would have parkwide long-term minor beneficial effects on vegetation.

Cumulative Impacts. Past actions, including fire suppression and maintenance activities, have allowed for an increase in invasive and noxious species and have resulted in unhealthy forests within the park. Proposed and ongoing NPS maintenance and management activities would assist in reestablishing healthy systems where previous activities, such as cessation of fire as well as clearing of the landscape for crops, have allowed the invasion of eastern red cedars and other species. Reasonably foreseeable future actions include implementing several plans to improve the health of the vegetation in the park and to better convey the historic character of the battlefield during the period of significance. The vegetation management plan would implement techniques such as thinning, mowing, haying, and planting seedlings to improve vegetation community health and to better convey the historic character of the cultural landscape. Implementing the EPMP to control invasive and noxious plant species and implementing the FMP through prescribed burning to reduce hazardous fuels and trees would also improve the health of vegetation communities. Existing and future residential and commercial development surrounding the park would increase the fragmentation of the existing native plant communities. Development would isolate the native vegetation and diminish the range and size of plant populations within the park. The potential for invasion of undesirable exotic vegetation would increase as development continues and when Highway 62 is rehabilitated for park use. Overall, when combined with past, present, and reasonably foreseeable future actions, the no action alternative would have a parkwide moderate beneficial cumulative effect on vegetation.

Conclusions. Because vegetation health in the park would slightly improve over time, the no action alternative would have parkwide long-term minor beneficial effects on vegetation. Cumulative effects would be parkwide, moderate, and beneficial.

Alternative 1: Investigating and Preserving the Battle Landscape

Direct and Indirect Impacts of the Alternative. Alternative 1 would have little effect on vegetation in the landscape character areas. The alternative is focused on archeological investigations and historic research, with limited vegetation management. Current vegetation management in the Ford Area, Leetown Hamlet, and Elkhorn Tavern / Williams Hollow would continue, with some minor changes to better reveal the spatial relationships of roads and extant and non-extant buildings. In addition to similar management and minor modifications at Elkhorn Mountain and the Federal Trenches, additional vegetation management would include clearing and thinning trees and/or trimming shrubs in portions of the landscape character areas to open up historic views and lines of sight. Much of these areas include forest and brush that have encroached into historically cleared areas. The areas in which trees are removed would likely become forested unless managed otherwise. All vegetation

management would be consistent with the park's goal to improve vegetation health and better depict the historic character of the battlefield during the period of significance. Because Alternative 1 would include minor modifications to current vegetation management activities and would be consistent with measures to improve vegetation health and better depict the historic character of the cultural landscape, its effects would be local, long-term, minor, and beneficial.

Cumulative Impacts. As described in the no action alternative, past, present, and reasonably foreseeable future projects would have a park wide moderate beneficial effect on vegetation. Those impacts, in combination with the local long-term minor beneficial effects of Alternative 1, would result in park wide moderate beneficial cumulative impacts.

Conclusions. Under Alternative 1, the minor modifications in existing vegetation management in the landscape character areas would result in local, long-term, minor, beneficial effects on vegetation. Cumulative effects would be parkwide, moderate, and beneficial.

Alternative 2: Preferred Alternative, Revealing the Battlefield Landscape

Direct and Indirect Impacts of the Alternative. Alternative 2 would include effects similar to those described for Alternative 1, including modifications to current vegetation management practices. The extent of modification would be greater than under Alternative 1. More trees would be cleared at the Federal Trenches and on Elkhorn Mountain. The farmstead character of the Ford and Elkhorn Tavern/Williams Hollow areas would be expressed by managing vegetation to establish fields and, possibly, orchards. As with Alternative 1, the changes in vegetation management would be consistent with the overall goal of improving the health of the vegetation communities and better conveying the historic character of the park. For these reasons, Alternative 2 would have local, long-term, minor, beneficial effects on vegetation.

Cumulative Impacts. As described in the no action alternative, past, present, and reasonably foreseeable future projects would have a parkwide moderate beneficial effect on vegetation. Those effects, in combination with the local long-term minor beneficial effects of Alternative 2, would result in parkwide moderate beneficial cumulative impacts.

Conclusions. Alternative 2 would include modifications to vegetation in the landscape character areas that would have local minor long-term beneficial effects. Cumulative effects would be parkwide, moderate, and beneficial.

Alternative 3: Reconstructing the Battle Scene

Direct and Indirect Impacts of the Alternative. Alternative 3 would include vegetation management and effects similar to those described for Alternative 2, but would include rehabilitating historic roads by clearing and trimming vegetation. As with alternatives 1, and 2 the changes in vegetation management would be consistent with the overall goal of improving the health of the vegetation communities and better conveying the historic character of the park. For these reasons, Alternative 3 would have local, long-term, minor, beneficial effects on vegetation.

Cumulative Impacts. As described in the no action alternative, past, present, and reasonably foreseeable future projects would have a parkwide moderate beneficial effect on vegetation. Those effects, in combination with the local long-term minor beneficial effects of Alternative 3, would result in parkwide moderate beneficial cumulative impacts.

Conclusions. Alternative 3 would include modifications to vegetation in the landscape character areas that would have local minor long-term beneficial effects. Cumulative effects would be parkwide, moderate, and beneficial.

Wildlife

Methodology

Potential impacts on wildlife are evaluated based on the native species, their habitats, and the natural processes sustaining them within the park. The NPS Organic Act, which directs parks to conserve wildlife unimpaired for future generations, is interpreted to mean that native animal life should be protected and perpetuated as part of the park's natural ecosystem. Natural processes are relied on to control populations of native species to the greatest extent possible; otherwise, they are protected from harvest, harassment, or harm by human activities. According to NPS Management Policies 2006, the restoration of native species is a high priority (sec. 4.1.). Management goals for wildlife include maintaining components and processes of naturally evolving park ecosystems, including natural abundance, diversity, and the ecological integrity of plants and animals. Short-term impacts on wildlife were considered to be those impacts that would last less than one year, while long-term impacts would be impacts lasting more than one year.

The resource-specific context for assessing impacts of the alternatives on wildlife includes:

- The contribution of wildlife to visitor experience within the park.
- The contribution of wildlife to understanding the Battle of Pea Ridge and the setting in 1862.
- The effects of changes in vegetation on wildlife, their habitats, and the natural processes sustaining them.

The thresholds of change for the intensity of impacts to wildlife are defined in Table 5-3.

TABLE 5-3. WILDLIFE IMPACT AND INTENSITY

Impact Intensity	Intensity Description
Negligible	There would be no observable or measurable impacts to native species, their habitats, or the natural processes sustaining them. Impacts would be well within natural fluctuations.
Minor	Impacts would be detectable and would not be expected to be outside the natural range of variability of native species' populations, their habitats, or the natural processes sustaining them. Mitigation measures, if needed to offset adverse effects, would be simple and successful.
Moderate	Breeding animals of concern are present; animals are present during particularly vulnerable life stages such as migration or juvenile stages; mortality or interference with activities necessary for survival would be expected on an occasional basis, but would not be expected to threaten the continued existence of the species in the park unit. Impacts on native species, their habitats, or the natural processes sustaining them would be detectable and would be outside the natural range of variability. Mitigation measures, if needed to offset adverse effects, would be extensive and likely successful.
Major	Impacts on native species, their habitats, or the natural processes sustaining them would be detectable and would be expected to be outside the natural range of variability. Key ecosystem processes might be disrupted. Loss of habitat might affect the viability of at least some native species. Extensive mitigation measures would be needed to offset any adverse effects and the success could not be guaranteed.

Environmental Consequences

No Action Alternative

Direct and Indirect Impacts. Under the no action alternative, current vegetation management practices in the landscape character areas and parkwide would continue, including thinning open woodlands, planting trees in areas that were historically forested but are currently open fields, mowing existing grassland areas, continuing to develop and implement the EPMP, and reestablishing the orchards at Elkhorn Tavern and Ford Farm. Tall grasses would be maintained around fences as habitat for game birds. In addition, the eastern red cedar populations would be greatly reduced. This would reduce the food source for birds and mammals in the park and reduce nesting and roosting cover for birds, including chipping sparrows, American robins, song sparrows, and other birds. Although these actions would modify wildlife habitat, the modifications would occur slowly over time and would not affect wildlife use of the habitat. Thinning open woodlands and planting trees in open fields would enhance habitat by reducing overgrown forests and expanding wooded habitat. Continued mowing would directly impact wildlife, specifically breeding birds, because it could cause a disturbance to birds or their nests. Although the prescribed burns could have a direct impact on wildlife within the areas to be burned, the burns would enhance and maintain wildlife habitat over the long term because fires can reduce the amount of exotic species and increase seed production. Deer and other wildlife populations would likely continue to increase in the park due to decreasing habitat in the areas surrounding the park. The continued vegetation management practices would have a beneficial impact on wildlife by maintaining and enhancing habitat within the park. Mowing nonnative grassland areas would have a local short-term minor adverse impact on wildlife habitat because it could affect breeding birds. Overall, the no action alternative would result in both local long-term minor beneficial effects and local short-term minor adverse impacts on wildlife.

Cumulative Effects. Past and ongoing NPS management of vegetation has maintained and enhanced wildlife habitat within the park. Reasonably foreseeable future actions include implementing the selected alternative for the vegetation management plan, the EPMP, and the FMP. Implementing these plans would consist of activities that would maintain and enhance wildlife habitat, with the exception of mowing and haying, which could directly decrease migratory bird habitat and potentially harm breeding nests. The relocation of Highway 62 would likely improve wildlife habitat by moving the highway away from the park and reducing traffic along the road, which would decrease noise and visual disturbances. Present and future residential and commercial development surrounding the park would indirectly adversely affect wildlife by decreasing surrounding habitat and increasing demand on the ecosystems present in the park. Overall, when combined with past, present, and reasonably foreseeable future actions, the no action alternative would have both beneficial and adverse parkwide minor cumulative impacts on wildlife.

Conclusion. The effects from the no action alternative on wildlife and wildlife habitat would occur over a long period and would not likely cause a decrease in wildlife populations. The no action alternative would result in both beneficial and adverse parkwide long-term minor impacts on wildlife. Cumulative impacts on wildlife would be both beneficial and adverse, parkwide, and minor.

Alternative 1: Investigating and Preserving the Battle Landscape

Direct and Indirect Impacts. Under Alternative 1, the effects on wildlife and wildlife habitat of minor modifications to the current vegetation management approaches in the landscape character areas would be so minor as to be indiscernible from effects of the no action alternative. Overall, Alternative 1 would result in both local long-term minor beneficial effects and local short-term minor adverse impacts on wildlife.

Cumulative Impacts. As described under the no action alternative, past, present, and reasonably foreseeable future actions would have both beneficial and adverse parkwide minor cumulative impacts on wildlife. Those impacts, in combination with the local long-term minor beneficial effects and local short-term minor adverse impacts on wildlife of Alternative 1 would result in parkwide minor beneficial and adverse cumulative effects.

Conclusion. Because the effects on wildlife and wildlife habitat under Alternative 1 would be indistinguishable from those of the no action alternative, Alternative 1 would have both beneficial and adverse parkwide long-term minor impacts on wildlife. Cumulative impacts on wildlife would be both beneficial and adverse, parkwide, and minor.

Alternative 2: Preferred Alternative, Revealing the Battlefield Landscape

Direct and Indirect Impacts. Under Alternative 2, the effects on wildlife and wildlife habitat of modifications to the current vegetation management approaches in the landscape character areas would be so minor as to be indiscernible from effects of the no action alternative and Alternative 1. Clearing and thinning trees at the Federal Trenches and on Elkhorn Mountain would reduce habitat for some species, but the availability of similar habitat throughout the park would result in no discernible changes in wildlife use. Overall, Alternative 2 would result in both local long-term minor beneficial effects and local short-term minor adverse impacts on wildlife.

Cumulative Impacts. As described under the no action alternative, past, present, and reasonably foreseeable future actions would have both beneficial and adverse parkwide minor cumulative impacts on wildlife. Those impacts, in combination with the local long-term minor beneficial effects and local short-term minor adverse impacts on wildlife of Alternative 2 would result in parkwide minor beneficial and adverse cumulative effects.

Conclusion. Because the effects on wildlife and wildlife habitat under Alternative 2 would be indistinguishable from those of the no action alternative, Alternative 2 would have both beneficial and adverse parkwide long-term minor impacts on wildlife. Cumulative impacts on wildlife would be both beneficial and adverse, parkwide, and minor.

Alternative 3: Reconstructing the Battle Scene

Direct and Indirect Impacts. Under Alternative 3, the effects on wildlife and wildlife habitat of modifications to the current vegetation management approaches in the landscape character areas would be so minor as to be indiscernible from effects of the no action alternative and alternatives 1 and 2. Clearing and thinning trees at the Federal Trenches and on Elkhorn Mountain and rehabilitating roads and farmstead fields would reduce habitat for some species, but the availability of similar habitat throughout the park would result in no discernible changes in wildlife use. Overall, Alternative 3 would result in both local long-term minor beneficial effects and local short-term minor adverse impacts on wildlife.

Cumulative Impacts. As described under the no action alternative, past, present, and reasonably foreseeable future actions would have

both beneficial and adverse parkwide minor cumulative impacts on wildlife. Those impacts, in combination with the local long-term minor beneficial effects and local short-term minor adverse impacts on wildlife of Alternative 3 would result in parkwide minor beneficial and adverse cumulative effects.

Conclusion. Because the effects on wildlife and wildlife habitat under Alternative 3 would be indistinguishable from those of the no action alternative, Alternative 3 would have both beneficial and adverse parkwide long-term minor impacts on wildlife. Cumulative impacts on wildlife would be both beneficial and adverse, parkwide, and minor.

Visitor Experience

Methodology

Potential impacts on visitor experience are assessed based on the affected environment for visitor 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 experience over time. For this analysis, visitor experience includes visitor understanding, satisfaction, and safety, as well as availability of visitor options. Short-term impacts on the visitor experience were considered to be those impacts that would last only during project implementation activities, while long-term impacts would be impacts extending beyond project implementation activities. Resource-specific context for assessing impacts of the alternatives on visitor experience includes:

- Expectations of visitors to experience an accurate Civil War battle site.
- Visitor understanding of the Battle of Pea Ridge and how the cultural landscape may have influenced the battle.
- The contribution of the cultural landscape to visitor experience of the park.
- The ability of visitors to enjoy a safe experience in the park.
- The effects of treatment activities on visitor experience.

The thresholds of change for the intensity of an impact to visitor experience and recreation resources are described in Table 5-4.

TABLE 5-4. VISITOR EXPERIENCE IMPACT AND INTENSITY

Impact Intensity	Intensity Description
Negligible	Changes in visitor experience would be below or at an imperceptible level of detection. The visitor would not likely be aware of the effects associated with the action.
Minor	Changes in visitor experience would be detectable, although the changes would be slight. Most visitors would be aware of the effects associated with the action, but would not likely express an opinion about the changes.
Moderate	Changes in visitor experience would be readily apparent. The visitor would be aware of the effects associated with the action and would likely express an opinion about the changes.
Major	Changes in visitor experience would be readily apparent and severely adverse or exceptionally beneficial. The visitor would be aware of the effects associated with the action and would likely express a strong opinion about the changes.

Short-term impact—occurs only during project construction
Long-term impact—continues after project construction

Environmental Consequences

No Action Alternative

Under the no action alternative, the present level of use, management, interpretation, maintenance and operations of the cultural landscape would continue. The park would retain and enhance a large portion of the historic character of the battlefield landscape; however, the natural and man-made changes that have altered the landscapes and resources would not be substantially managed or changed. The natural and man-made modifications and alterations that have occurred within the battlefield landscape over time have altered it from its 1862 appearance. Many cultural landscape features would remain obscured by vegetation and unmarked. Vegetation encroachment and weathering would continue to deteriorate cultural landscape features.

By not substantially managing or changing the altered landscape and by not rehabilitating the cultural landscape by preserving known contributing features and by revealing the patterns and features that existed at the time of the battle, the interpretation value and visitor understanding of the battlefield landscape would continue to deteriorate. Because of this, the ability of the park to convey the historic character of the cultural landscape that existed at the time of the Battle of Pea Ridge would be diminished. The existing interpretation, exhibits, special events, and overall visitor experience would continue under the no action alternative. Because the natural and man-made changes in the park would not be substantially managed or changed, the no action alternative would have parkwide long-term minor adverse effects on the visitor experience.

Cumulative Impacts. Past and ongoing NPS management of vegetation and cultural landscape features has maintained, but not greatly improved, the conditions of the cultural landscape. The current conditions affect visitor enjoyment because the conditions do not accurately represent the battlefield landscape and alter and partially obscure views and interpretation in some areas of the battlefield. Reasonably foreseeable future actions include implementing the vegetation management plan, which will better convey the historic character of the battlefield and improve the visitor understanding of the park. Implementing the EPMP to control invasive and noxious plant species and implementing the FMP to reduce hazardous fuels and trees would have minor contributions to the beneficial effects of the vegetation management plan. The relocation of U.S. Highway 62 would likely indirectly improve visitor experience by moving the highway away from the park, thereby decreasing noise and visual disturbances. Present and future residential and commercial development surrounding the park would indirectly adversely affect visitor experience by diminishing the landscape setting of the battle and by increasing demand on natural spaces in the park. When combined with past, present, and reasonably foreseeable future actions, the no action alternative would have parkwide moderate beneficial and negligible to minor adverse cumulative impacts on visitor experience.

Conclusions. The natural and man-made changes that have altered the park from its 1862 appearance would not be substantially managed or changed under the no action alternative. These current and continuing changes would lead to a reduced interpretation value and visitor understanding of the Battle of Pea Ridge. As a result, the no action alternative would have parkwide long-term minor adverse impacts on visitor experience because. The no action alternative would have parkwide moderate beneficial and minor adverse cumulative impacts on visitor experience.

Alternative 1: Investigating and Preserving the Battle Landscape

Direct and Indirect Impacts of the Alternative. Alternative 1 focuses on addressing future research and investigation needed to accurately convey the historic setting, particularly in the landscape character areas. This would eventually improve the experience of visitors as new knowledge and understanding are incorporated into vegetation management, preservation of cultural landscape features, and interpretative programing. Alternative 1 would also include some preservation, stabilization, and repair of extant features, which would somewhat improve visitor understanding of the site. Large trees would be thinned at the East Overlook and at the Federal Trenches to open up historic views and lines of sight. Because of the many improvements, Alternative 1 would have a parkwide long-term minor beneficial effect on visitor experience.

Cumulative Impacts. Along with the parkwide long-term minor beneficial impact of Alternative 1 on visitor experience, cumulative effects of Alternative 1 would be parkwide, moderate, and beneficial and parkwide, minor, and adverse.

Conclusions. The additional knowledge and understanding of the cultural landscape of the park and select preservation, stabilization, and repair of extant features would have a parkwide long-term minor beneficial effect on visitor experience. Cumulative effects of Alternative 1 would be parkwide, moderate, and beneficial and parkwide minor and adverse.

Alternative 2: Preferred Alternative, Revealing the Battlefield Landscape

Direct and Indirect Impacts of the Alternative. As with Alternative 1, under Alternative 2, there would be additional research and investigations, but the alternative would focus on depicting the spatial qualities of the historic setting during the period of significance. This focus would provide new and more accurate interpretive opportunities throughout the site. Because of the many improvements, Alternative 2 would have a parkwide moderate long-term beneficial effect on visitor experience.

Cumulative Impacts. Along with the parkwide long-term moderate beneficial impact of Alternative 2 on visitor experience, cumulative effects of Alternative 2 would be parkwide, moderate, and beneficial and parkwide, minor, and adverse.

Conclusions. More accurately depicting the historic character of the park during the period of significance under Alternative 2 would have parkwide long-term moderate beneficial effects on visitor experience. Cumulative effects of Alternative 2 would be parkwide, moderate, and beneficial and parkwide, minor, and adverse.

Alternative 3: Reconstructing the Battle Scene

Direct and Indirect Impacts of the Alternative. Alternative 3 would rehabilitate the Pea Ridge Battlefield landscape to closely resemble what the fighting soldiers witnessed. The landscape that the troops encountered would be closely reflected in the reconstruction of features. This alternative provides the opportunity for the most immersive experience for visitors, recreates the most features, and offers to tell the story of the greater landscape. Visitors would have the opportunity to discover the realities that the fighting soldiers faced by revealing the physical obstacles that challenged them during the two-day battle. Under Alternative 3, effects on visitor experience would be parkwide, long-term, moderate, and beneficial.

Cumulative Impacts. Along with the parkwide long-term moderate beneficial impact of Alternative 3 on visitor experience, cumulative effects of Alternative 3 would be parkwide, moderate, and beneficial and parkwide, minor, and adverse.

Conclusions. More accurately depicting the historic character of the park during the period of significance under Alternative 3 would have parkwide long-term moderate beneficial effects on visitor experience. Cumulative effects of Alternative 3 would be parkwide, moderate, and beneficial and parkwide, minor, and adverse.

Park Operations

Methodology

Park operations include the infrastructure, staff, and maintenance activities used in the operation of the park to adequately protect and preserve vital resources and provide for an effective and safe employee and visitor experience. This includes interpretation and education, protection, planning and resource management, business services, and facility management. Short-term impacts on park operations were considered to be those impacts that would last only during implementation activities, while long-term impacts would extend beyond implementation activities. Resource-specific context for assessing impacts of the alternatives on park operations 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 park, but must also provide for an effective and safe experience and protect resources within the entire park.
- Cultural landscape treatments must not affect the ability of park staff to complete maintenance activities and ensure a safe environment.

The thresholds of change for the intensity of an impact to park operations are described in Table 5-5.

TABLE 5-5. PARK OPERATIONS IMPACT AND INTENSITY

Impact Intensity	Intensity Description
Negligible	The effects would be at low levels of detection and would not have appreciable effects on park operations.
Minor	The effects would be detectable, and would be of a magnitude that would not have appreciable effects on park operations. If mitigation is needed to offset adverse effects, it would be simple and likely successful.
Moderate	The effects would be readily apparent and would result in a change in park operations that would be noticeable to park staff and the public. Mitigation measures would be necessary to offset adverse effects and would likely be successful.
Major	The effects would be readily apparent, would result in a substantial change in park operations in a manner noticeable to staff and the public, and would be markedly different from existing operations. Mitigation measures to offset adverse effects would be necessary and extensive, and success could not be guaranteed.

Environmental Consequences

No Action Alternative

Direct and Indirect Impacts of the Alternative. Under the no action alternative, there would be no change in current site operations or infrastructure. The park would continue the present level of operations and maintenance of the cultural landscape in the park, as funding allows. The estimated number of labor hours required for continuing current management activities would remain the same under the no action alternative; therefore, the no action alternative would have no effect on the park budget.

Under the no action alternative, the natural and man-made changes that have altered the cultural landscape and its contributing features from its 1862 appearance would not be reduced and the cultural landscape would continue to deteriorate. This would affect the interpretive staff's ability to effectively convey how the cultural landscape influenced the Battle of Pea Ridge. The no action alternative would have a parkwide long-term minor adverse impact on park operations because the ability of the interpretive staff to demonstrate how vegetation influenced the Battle of Pea Ridge would be diminished.

Cumulative Impacts. Past actions and reasonably foreseeable future actions include implementing the vegetation management plan, the EPMP, and the FMP. These actions would have no new impacts on park operations, they would merely refocus existing resources on different goals and objectives. The relocation of U.S. Highway 62 would impact park operations by closing sections of the park during construction and increasing costs for maintenance. When combined with past, present, and reasonably foreseeable future actions, the no action alternative would have a parkwide minor adverse cumulative impact on park operations.

Conclusions. Current maintenance and operation activities would continue under the no action alternative. The continued cultural landscape management actions would result in the continued deterioration in cultural resources, interpretation, and education value of the park, which would result in a parkwide long-term minor adverse impact on park operations by preventing park staff from being able to adequately convey the Battle of Pea Ridge. Cumulative effects on park operations would be parkwide, minor, and adverse.

Alternative 1: Investigating and Preserving the Battle Landscape

Direct and Indirect Impacts of the Alternative. Alternative 1 focuses on addressing future research and investigation needed to accurately convey the historic setting, particularly in the landscape character areas. This would eventually improve the park interpretive staff's ability to effectively convey how the cultural landscape influenced the Battle of Pea Ridge. Alternative 1 would also include some preservation, stabilization, and repair of extant features, and large trees would be thinned at the East Overlook and at the Federal Trenches to open up historic views and lines of sight. These activities would require minor reallocations of budget and labor to implement, which would have a minor effect on park operations. Because of the improvements, Alternative 1 would have parkwide long-term minor beneficial effects and parkwide long-term minor adverse effects on park operations.

Cumulative Impacts. Along with the parkwide long-term minor beneficial and adverse impacts of Alternative 1 on park operations, cumulative effects of Alternative 1 would be parkwide, minor, and beneficial and parkwide, minor, and adverse.

Conclusions. The additional knowledge and understanding of the cultural landscape of the park and select preservation, stabilization, and repair of extant features would have parkwide long-term minor beneficial and adverse effects on park operations. Cumulative effects of Alternative 1 would be parkwide, minor, and beneficial and parkwide minor and adverse.

Alternative 2: Preferred Alternative, Revealing the Battlefield Landscape

Direct and Indirect Impacts of the Alternative. As with Alternative 1, under Alternative 2, there would be additional research and investigations, but the alternative would focus on depicting the spatial qualities of the historic setting during the period of significance. This focus would provide new and more accurate interpretive opportunities throughout the site, which would improve the park interpretive staff's ability to effectively convey how the cultural landscape influenced the Battle of Pea Ridge. Alternative 2 would also include some preservation, stabilization, and repair of extant features, and large trees would be thinned at the East Overlook and at the Federal Trenches to open up historic views and lines of sight. Historic roads and trails would be preserved and repaired to fully convey the circulation network that existing at the time of the battle. Non-extant features would be marked or cleared and some non-extant features would be 'ghosted', which would require on-going maintenance. These activities would require minor reallocations of budget and labor to implement, which would have a minor adverse effect on park operations. Because of the improvements, Alternative 2 would have parkwide long-term minor beneficial effects and parkwide long-term minor adverse effects on park operations.

Cumulative Impacts. Along with the parkwide long-term minor beneficial and adverse impacts of Alternative 2 on park operations, cumulative effects of Alternative 2 would be parkwide, minor, and beneficial and parkwide, minor, and adverse.

Conclusions. The focus of Alternative 2 would be on depicting the spatial qualities of the historic setting during the period of significance, which would have parkwide long-term minor beneficial and adverse effects on park operations. Cumulative effects of Alternative 2 would be parkwide, minor, and beneficial and parkwide minor and adverse.

Alternative 3: Reconstructing the Battle Scene

Direct and Indirect Impacts of the Alternative. Alternative 3 would rehabilitate the Pea Ridge landscape to closely resemble what the fighting soldiers witnessed. The landscape that the troops encountered would be closely reflected in the reconstruction of features. This focus would provide new and more accurate interpretive opportunities throughout the site, which would improve the park interpretive staff's ability to effectively convey how the cultural landscape influenced the Battle of Pea Ridge. Alternative 3 would also include preservation, stabilization, and repair of extant features, large trees would be thinned at the East Overlook and at the Federal Trenches to open up historic views and lines of sight. Historic roads and trails would be preserved and repaired to fully convey the circulation network that existing at the time of the battle. Non-extant features would be marked or cleared and some non-extant features would be 'ghosted' and other would be reconstructed. These activities would require initial implementation and on-going maintenance. These activities would require minor increases in budget and labor to implement and maintain, which would have a minor adverse effect on park opera-

tions. Because of the improvements, Alternative 3 would have parkwide long-term minor beneficial effects and parkwide long-term minor adverse effects on park operations.

Cumulative Impacts. Along with the parkwide long-term minor beneficial and adverse impacts of Alternative 3 on park operations, cumulative effects of Alternative 3 would be parkwide, minor, and beneficial and parkwide, minor, and adverse.

Conclusions. The focus of Alternative 3 would be on rehabilitating the Pea Ridge landscape to closely resemble what the fighting soldiers witnessed, which would have parkwide long-term minor beneficial and adverse effects on park operations. Cumulative effects of Alternative 3 would be parkwide, minor, and beneficial and parkwide minor and adverse.

Visual Resources

Methodology

Potential impacts on scenic resources are evaluated based on what is seen by the visitor within the park, which varies depending on the visitor's objectives. Visual resources include the visitor center and the views from the visitor center, tour stops and overlooks along the Tour Road, areas in the battlefield where visitors are able to walk around, and the hiking trails and horse trail in the forests. Therefore, the geographic study area for impacts on scenic resources extends throughout the areas in the park with visitor access, plus those areas outside the park that can be seen by visitors, especially to the north (where housing development has occurred) and south and west (where highways are located). The scenic environment impacts both the visitor anticipation and experience at the site. Short-term impacts on visual resources were considered to be those impacts that would last less than three years, while long-term impacts would be impacts lasting more than three years.

The resource-specific context for assessing impacts of the alternatives on visual resources includes:

- The contribution of visual resources to the visitor experience within the park.
- The contribution of visual resources to understanding the Battle of Pea Ridge and the setting in 1862.
- The effects of changes in vegetation on visual resources.

Visual resources are the features that define the visual character of an area such as natural features, vistas, viewsheds, and architecture. The thresholds of change for the intensity of impacts to visual resources are described in Table 5-6.

TABLE 5-6. VISUAL RESOURCES IMPACT AND INTENSITY

Impact Intensity	Intensity Description
Negligible	Effects would result in barely perceptible changes to existing views.
Minor	Effects would result in slightly detectable changes to views in a small area or would introduce a compatible human-made feature to an existing developed area.
Moderate	Effects would be readily apparent and would change the character of visual resources in the area. The visitor would be aware of the effects associated with the alternative and would likely express a neutral to negative opinion about the changes.
Major	Effects would be highly noticeable and visible from a considerable distance or over a large area. The character of visual resources would change substantially. The visitor would be aware of the effects associated with the alternative and would likely express a strong negative opinion about the changes.

Environmental Consequences

No Action Alternative

Direct and Indirect Impacts of the Alternative. Under the no action alternative, the park would retain and enhance a substantial portion of the historic and visual character of the battlefield landscape; however, the natural and man-made changes that have altered the visual character of the landscapes would not be substantially managed or changed. There would also be no change in management of contributing cultural landscape features. By not substantially managing or changing the altered landscape, the interpretation value and visitor understanding of the battlefield landscape would continue to deteriorate over time. The natural and man-made modifications and alterations that have occurred within and adjacent to the battlefield landscape over time have altered it from its 1862 appearance. This is especially apparent from tour stops with large vistas of the battlefield, such as the East Overlook. Because of this, under the no action alternative, visual resources of the park would be diminished.

Cumulative Impacts. Past and ongoing NPS management of the vegetation has maintained the viewshed within the park. The current conditions of the vegetation affect visual resources because current vegetative conditions do not accurately represent the battlefield landscape and alter and partially obscure views in some areas of the battlefield. Reasonably foreseeable future actions include implementing the vegetation management plan, the EPMP to control invasive and noxious plant species, and implementing the FMP through prescribed burning to reduce hazardous fuels and trees. Implementing these plans would have a beneficial effect on park visual resources by opening historic vistas and viewsheds and better conveying the spatial context of the cultural landscape at the time of the battle. The relocation of U.S. Highway 62 would likely directly improve visitor experience by moving the highway away from the park, thereby decreasing visual disturbances. Present and future residential and commercial development surrounding the park would directly adversely affect the viewshed by diminishing the landscape setting and backdrop of the battle. When combined with past, present, and reasonably foreseeable future actions, the no action alternative would have parkwide moderate beneficial and parkwide minor adverse cumulative impacts on visual resources.

Conclusions. Under the no action alternative, the visual character of the cultural landscape would not be substantially changed. Views of the battlefield would not accurately convey the historic character of cultural landscape during the period of significance. As a result, the no action alternative would have a parkwide long-term minor adverse effect on visual resources of the park.

Alternative 1: Investigating and Preserving the Battle Landscape

Direct and Indirect Impacts of the Alternative. Alternative 1 focuses on addressing future research and investigation needed to accurately convey the historic setting, particularly in the landscape character areas. This would eventually improve visual resources as new knowledge and understanding are incorporated into vegetation management and preservation of cultural landscape features. Alternative 1 would also include some preservation, stabilization, and repair of extant features, which would somewhat improve visual understanding of the site. Large trees would be thinned at the East Overlook and at the Federal Trenches to open up historic views and lines of sight. Because of the many improvements, Alternative 1 would have a parkwide long-term minor beneficial effect on visitor experience.

Cumulative Impacts. Along with the parkwide long-term minor beneficial impact of Alternative 1 on visitor experience, cumulative effects of Alternative 1 would be parkwide, moderate, and beneficial and parkwide, minor, and adverse.

Conclusions. The additional knowledge and understanding of the cultural landscape of the park and select preservation, stabilization, and repair of extant features would have a parkwide long-term minor beneficial effect on visitor experience. Cumulative effects of Alternative 1 would be parkwide, moderate, and beneficial and parkwide minor and adverse.

Alternative 2: Preferred Alternative, Revealing the Battlefield Landscape

Direct and Indirect Impacts of the Alternative. As with Alternative 1, under Alternative 2, there would be additional research and investigations, but the alternative would focus on depicting the spatial qualities of the historic setting during the period of significance. This focus would provide more accurate depictions of the cultural landscape, which would improve visual resources of the park. Because of the many improvements, Alternative 2 would have a parkwide moderate long-term beneficial effect on visual resources.

Cumulative Impacts. Along with the parkwide long-term moderate beneficial impact of Alternative 2 on visual resources, cumulative effects of Alternative 2 would be parkwide, moderate, and beneficial and parkwide, minor, and adverse.

Conclusions. More accurately depicting the historic character of the park during the period of significance under Alternative 2 would have parkwide long-term moderate beneficial effects on visual resources. Cumulative effects of Alternative 2 would be parkwide, moderate, and beneficial and parkwide, minor, and adverse.

Alternative 3: Reconstructing the Battle Scene

Direct and Indirect Impacts of the Alternative. Alternative 3 would rehabilitate the Pea Ridge Battlefield landscape to closely resemble what the fighting soldiers witnessed. The landscape that the troops encountered would be closely reflected in the reconstruction of features. This alternative provides the opportunity for the most immersive experience for visitors, recreates the most features, and offers to tell the story of the greater landscape. This alternative would most extensively open up view sheds and lines of site in the park. Much more of the special context of the cultural landscape would be visible. Because of these changes, under Alternative 3, effects on visual resources would be parkwide, long-term, moderate, and beneficial.

Cumulative Impacts. Along with the parkwide long-term moderate beneficial impact of Alternative 3 on visual resources, cumulative effects of Alternative 3 would be parkwide, moderate, and beneficial and parkwide, minor, and adverse.

Conclusions. More accurately visually depicting the historic character of the park during the period of significance under Alternative 3 would have parkwide long-term moderate beneficial effects on visual resources. Cumulative effects of Alternative 3 would be parkwide, moderate, and beneficial and parkwide, minor, and adverse.

Chapter 6. Treatment Plan and Implementation Guidance

Introduction

This chapter presents the treatment plan, Alternative 2 (Preferred Alternative): Revealing the Battlefield Landscape, for the repair, protection and stewardship of the Pea Ridge National Military Park cultural landscape.[6.1]

The rehabilitation approach addresses resource protection, visitor experience and access improvements, and future research and investigations. Treatment recommendations provide for the holistic rehabilitation of the Pea Ridge cultural landscape by preserving known contributing features, and by revealing characteristic patterns, circulation and features that existed at the time of the battle.

The chapter begins with descriptions of the treatment approach and treatment goals. These sections are followed by the treatment plan and FMSS/Implementation Guideance.

The treatment plan provides detailed treatment recommendations for the Study Area, followed by treatment recommendations for each landscape character area: Leetown Hamlet, Federal Trenches, and Elkhorn Tavern / Williams Hollow.

The treatment recommendations are followed by implementation guidance. This section organizes the recommendations into a series of project components, further defined by individual tasks, to assist the park in creating work orders using the Facility Management Software System (FMSS) format. The treatment tasks and priorities are presented in this chapter. The FMSS crosswalk tables are presented in Appendix H.

Treatment Approach

Rehabilitation is the selected overall treatment philosophy for the Pea Ridge National Military Park cultural landscape. Rehabilitation is the process of repairing and replacing deteriorated components and materials of the cultural landscape in association with alterations or additions that would be necessary to enable a compatible use for the property. This treatment approach would best assist the park in efforts to protect the cultural landscape as it would allow for actions such as preservation, restoration, and repair. Removal of non-contributing features would be allowed.

Alterations and new features would be allowed as long as the preservation of existing features that convey the historical and cultural values of the historic site are ensured. This approach would allow for the addition and relocation of the future visitor center and for revisions to the Tour Road.

6.1 The treatment approach of rehabilitation was developed during the Alternatives Work Session on November 6 and 7, 2013.

Treatment Goals

Treatment goals assist in guiding the desired future condition of the cultural landscape.

i. The CLR/EA would provide for the long-term management of the historic site through detailed actions that would have a positive impact on the park.

ii. The CLR/EA would identify priorities for immediate, near-term and long-term actions.

iii. The historic character of the cultural landscape would be managed to tell the story of the Battle of Pea Ridge within its contextual backdrop—ecology, vegetation, features, and relationships between features.

iv. The historic character of the battlefield —prior to the battle, during the battle and in the years through 1865—would be conveyed to provide a sense of the dynamically changing landscape of the battle.

v. Further historical research and archeological investigations would be a high priority, and would be undertaken using the most technologically advanced methods.

vi. Contributing features, and those qualities that contribute to the historic character of the cultural landscape would be protected through actions and further study.

vii. Those features that are non-contributing to the Battle of Pea Ridge, but may be significant in their own right (and possibly eligible for NRHP listing) would be protected.

General Recommendations

The treatment plan addresses the rehabilitation of the cultural landscape. Those patterns and features that are essential components of the cultural landscape would be preserved as they convey an authentic setting that would have existed at the time of the battle. Several treatment recommendations are general recommendations. These actions are presented in this section.

1. A new visitor center / facility complex would be located on the west edge of the park as recommended by the GMP/EIS. The complex would be located north of Leetown Hamlet, accessed by Old Leetown Road. This would become the relocated / rerouted Highway 72.

2. The existing visitor center complex would remain for the short-term. It would be screened to visually minimize its impact on the historic battlefield using strategically placed trees and a native understory. The complex was built in the 1960s, as part of the Mission 66 program, and has been assessed and determined to be elibible for NRHP listing for this period (which also includes the tour road, overlook and pull outs). Repair of the site after the facilities are removed would include abandoning some utilities, and rehabilitating this area to a condition similar to the historic setting.

3. Arkansas Highway 72 would be rerouted outside the park boundaries in compliance with the GMP/EIS recommendations. This would assist in the rehabilitation of the cultural landscape and in reestablishing the historic agrarian setting.

4. U.S. Highway 62 would be relocated to the park's southern boundary. The park entry and parking at the visitor center would be modified as would the Tour Road, parking at Elkhorn Tavern, and the horse trail-

head. These modifications would follow the preferred alternative for the mitigation of the highway relocation. A restroom facility may be part of the new parking at Elkhorn Tavern.

5. Pedestrian and equestrian uses would be allowed on historic circulation routes with maintenance actions tailored to manage these uses. Bicycle use would be prohibited on historic routes.

6. The horse trail would remain as a park amenity and would be managed according to best practices. The horse trail may follow historic circulation routes, when feasible/practicable, with maintenance actions tailored to manage this use.

7. Resources associated with the Trail of Tears would be included with the repair of Telegraph Road as it was an important historic event. This importance relates to the road's inception in the 1830s, and its role as part of the northern route of the Trail of Tears.

8. Mass grave sites from the Battle of Pea Ridge would be identified and preserved through historical research and non-intrusive archeological techniques.

9. Cross Timber Hollow via Telegraph Road would offer an important 'back country' experience, accessible by foot with maintenance actions tailored to use. Further research and investigations would be conducted to identify connections between the tanyard and Van Dorn to determine the role, if any, the tanyard had with the battle.

10. Further research and investigations would be conducted for hospital site(s) noted on historic maps of the battle. These maps indicate several hospital sites in Cross Timber Hollow and other locations within the park.

11. At Winton Springs, historical research would be conducted to define extant features in existence at the time of the battle (potentially foundations, remnants, spring houses, roads). Extant features that date from the period of significance would be stabilized. The existing road and gravel area would be retained and reconfigured for park use.

12. The three commemorative monuments would be preserved and repaired. The setting of the two commemorative monuments at Elkhorn Tavern would be rehabilitated to reflect the 1880s appearance and to allow for pedestrian access. The setting of the 1930s monument would be preserved.

13. Non-contributing features not needed for functional purposes or that detract from the historic setting would be removed.

14. The recommendations of the Vegetation Management Plan (VMP) would be followed for the study area. Site specific recommendations for areas identified by the VMP for inclusion in the CLR/EA: Ford Farm, Winton Springs, Leetown Hamlet, Elkhorn Tavern / Williams Hollow, and Federal Trenches would be treated as recommended in this CLR/EA.

15. The natural systems of the Pea Ridge cultural landscape, including the natural drainages of the park, would be preserved and maintained. These drainages include Lee Creek, the South Branch of Winton Spring, and the seasonal drainages of Cross Timber and Williams hollows. The vegetation of these waterways would be maintained in a native state to convey the historic setting and to protect stream banks and channels from excessive cutting and erosion.

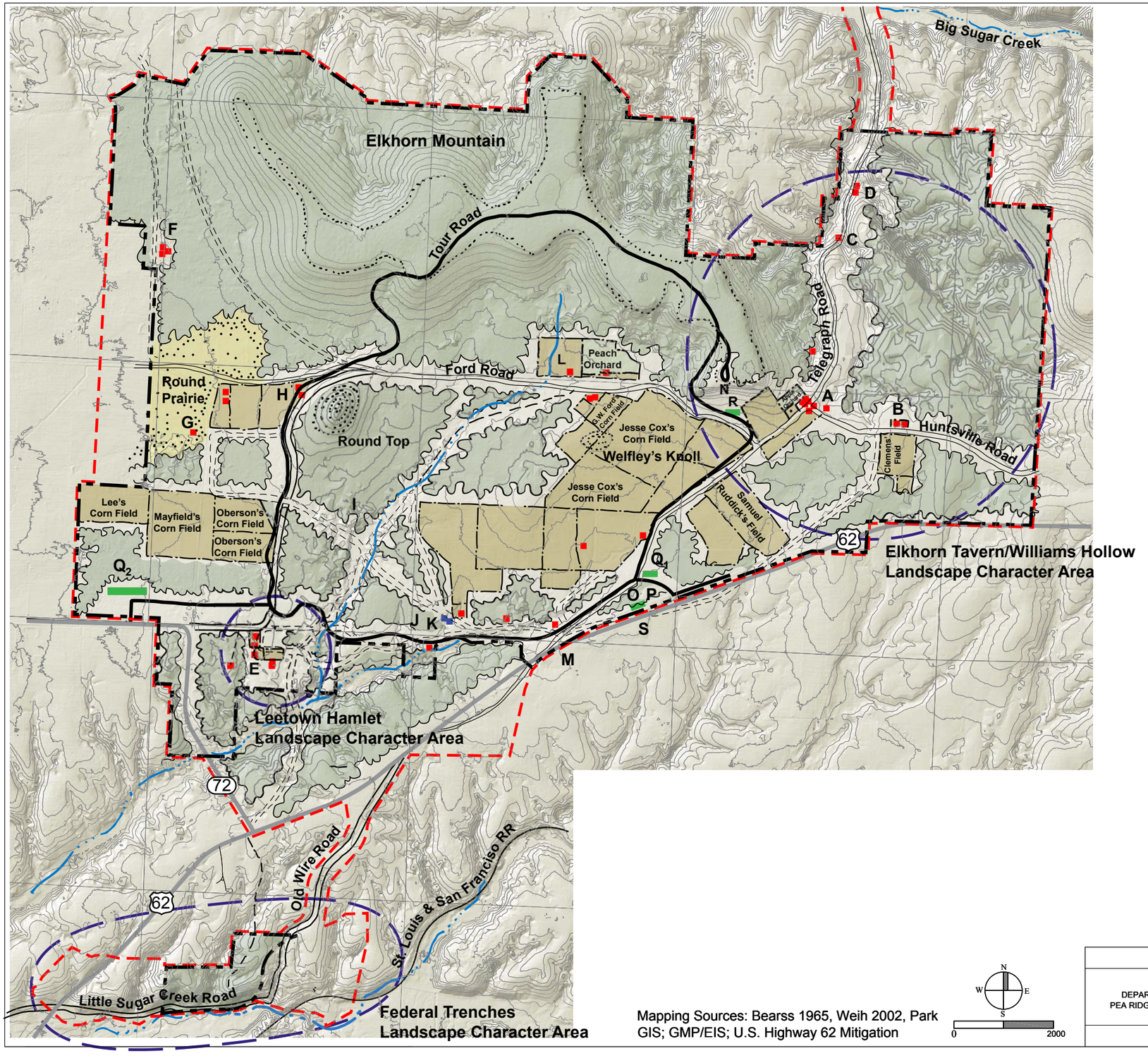
Treatment Plan

The Treatment Plan, *Revealing the Battlfield Landscape (Preferred Alternative),* would reveal the landscape that soldiers and civilians experienced during the Battle of Pea Ridge in 1862 and through 1865. This would be accomplished by reestablishing the spatial qualities of the historic setting. Extant contributing features would be preserved and repaired and non-extant features that existed at the time of the battle would be identified and marked.

The personal stories of the inhabitants (farm owners, families, slaves, etc.) and accounts from the soldiers would be researched. Opportunities for interpretation of the battle landscape, the influence the battle had on the community, experiences of the soldiers, and the aftermath of the war would be provided.

Further archeological investigations and research would be undertaken, particularly at key sites (e.g., Leetown Hamlet, Elkhorn Tavern). Investigations would focus on identifying below-grade remnants of historic buildings, structures, roads and other features that would have been present at the time of the battle.

The spatial relationships and views of the physical setting would be reestablished through the removal and thinning of vegetation, and repair and use of the historic circulation system. This alternative would focus on the preservation, stabilization and repair of features. Compatible additions and uses would be allowed.



Legend

- PARK BOUNDARY
- STUDY AREA BOUNDARY
- ROAD
- TOUR ROAD
- HISTORIC ROAD: MAJOR ROAD
- HISTORIC ROAD: TRACE
- HISTORIC ROAD
- FENCE: HISTORIC ALIGNMENT
- MARK OUTLINE (non-extant bldg or structure)
- STABILIZED BUILDING FOUNDATION
- NPS FACILITIES / PARKING

- PRAIRIE
- FIELDS/PASTURES
- ORCHARD
- WOODLANDS
- OPEN FOREST - ALONG ROADS

Places

A Elkhorn Tavern
B Clemens' Farm
C Tanyard
D Unidentified
E Leetown Hamlet
F Amos J Patterson
G Wiley Foster
H Sturdy Cabin
I Log Cabin (Morgan's Woods)
J Winton Springs House
K J. Ruddick
L Ford Farm / Ford Cemetery
M Pratt's House / Store
N NPS East Overlook
O NPS Maintenance
P NPS Administrative
Q_1 NPS Visitor Center - Existing
Q_2 NPS Visitor Center - Proposed
R NPS Parking
S NPS Horse Trail Parking

Figure 6-2.

Mapping Sources: Bearss 1965, Weih 2002, Park GIS; GMP/EIS; U.S. Highway 62 Mitigation

N W E S 0 2000

AUGUST 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
PEA RIDGE NATIONAL MILITARY PARK

TITLE OF PROJECT
CULTURAL LANDSCAPE REPORT
AND ENVIRONMENTAL ASSESSMENT
TITLE OF DRAWING
TREATMENT PLAN
NAME OF PARK
PEA RIDGE NATIONAL MILITARY PARK
REGION MIDWEST | COUNTY BENTON | STATE ARKANSAS

PERI 409 125967

Study Area

Archeological Sites

The archeology of the cultural landscape includes remains of physical features that existed during the battle and the period of significance, and artifacts directly related to the battle. Features or artifacts may also remain from earlier periods including the Trail of Tears. Archeological remains include an unknown number of foundations including those from the farms of the Ford, Ruddick, and Clemens families.

Archeological investigations and further research would be undertaken to fully define the physical extent of the historic setting.

1. Archeological investigations would determine the extent of historic farm spaces such as pastures, gardens, and barnyards that would have been a part of the landscape historically but are no longer visible.

    a. Research and investigations into the individual families would be undertaken to determine connections to the Civil War or the battlefield.

    b. At the Ford Farm, research and investigations would be undertaken to determine the full extent of the farm, and of the Ford Cemetery and those buried in the cemetery.

2. Archeological investigations would focus on identifying potential extant below-grade features and the accurate locations of buildings, structures and roads that existed at the time of the battle. Actions could include some limited ground disturbance.

    - Elkhorn Tavern barn(s), stable, blacksmith shop
    - Clemens' House site and barn
    - Leetown Hamlet buildings and structures

3. Known archeological sites would be preserved.

    - Amos J. Patterson
    - Wiley Foster
    - Sturdy Cabin
    - Log Cabin (Morgan's Woods)
    - J. Ruddick
    - G.W. Ford House and Barn

4. Known archeological sites that contribute to the historic character would be preserved. These could yield more information on the battle's history and setting.

5. Archeological investigations would be undertaken in areas associated with the Trail of Tears.

    a. Consider investigations to reveal the campsite along the trail at Ruddick's Field.

6. Archeological investigations would be undertaken for proposed projects in advance of any other work in areas that have not been previously surveyed.

    a. Archeological investigations would be an integrated task of any construction or demolition activities include re-routing the Tour Road and relocation of the visitor center / facility complex.

7. Known and potential areas of archeological importance would be preserved by locating new improvements in previously disturbed areas.

8. If acquisition of additional parcels identified by the GMP/EIS were to occur, archeological investigations would be undertaken to identify additional below-grade remains of physical features.

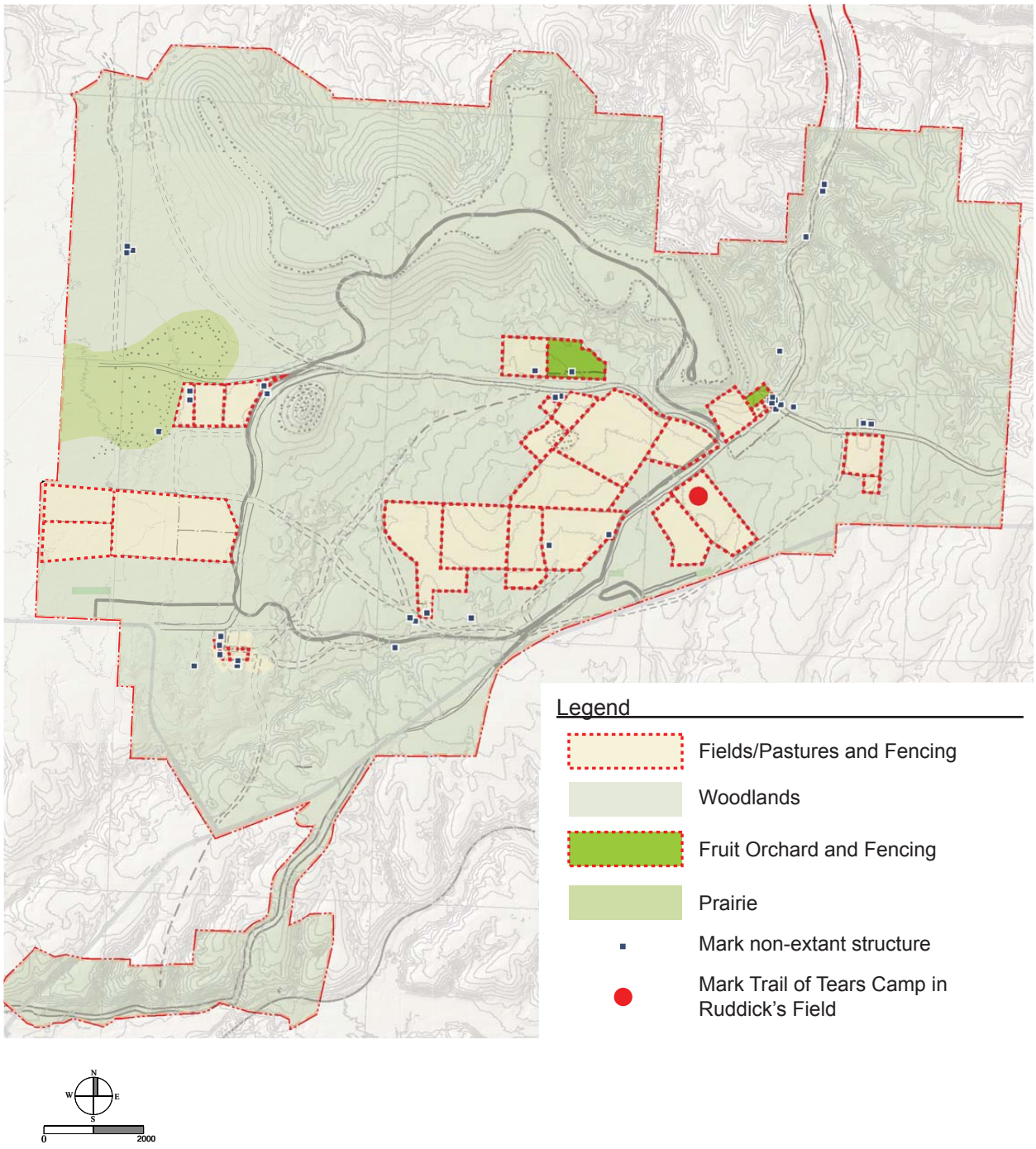


Figure 6-3. Spatial organization of the cultural landscape would reflect the historic patterns and setting that existed at the time of the battle (Source: MB 2013).

Study Area

Spatial Organization

The historic spatial organization of the cultural landscape would be reestablished. The appearance of the landscape in 1862, reflected active agricultural use with farms, houses, gardens, barnyards, pastures, fields and fences composing the setting.

The three-dimensional character of this working landscape would be reestablished by delineating the spaces and relationships that existed at the time of the battle. Techniques would be simple markings of known features, maintaining fence lines, and preservation and repair of contributing features.

1. The historic spatial arrangement would be reestablished by maintaining fields and pastures as open areas contrasted by the dense, enclosed spaces of the surrounding woodlands (Figure 6-3) .

2. The spaces associated with the battle would be preserved as they existed at the time of the battle (Figure 6-4.).

    a. These would include Leetown Battlefield; Morgan's Woods; fields and pastures associated with Welfley's Knoll and the Elkhorn Tavern area, the tanyard, hospital sites and Leetown Hamlet.

    b. Worm fences would be used to delineate alignments of historic fence lines, in turn defining the historic spaces. Should research indicate additional fencing around farmhouses or barns, additional worm fencing, appropriate to the identified structure (e.g. post and rail, work rail, post and rider) would be installed.

3. Non-extant structures within areas associated with the battle would be marked.

    a. These would include Elkhorn Tavern, Clemens' House and Barn and structures of Leetown Hamlet.

4. The historic extents and spaces of each family farm present at the time of the battle would be identified.

    a. Where evidence exists, the boundaries of these farms and their farm spaces, barnyards and gardens versus fields or pastures, would be marked.

    b. These spaces would be maintained to indicate the spaces of a working landscape.

    c. Worm fences and vegetation would be used to indicate farm spaces.

    d. Material change may also include vegetation type that differs from adjacent vegetation such as clover contrasting with pasture grass to indicate the space of a former garden.

    e. Fruit orchards would be maintained as discrete spaces, distinct from adjacent fields and forests by maintaining the grid of trees and mown grass beneath the trees.

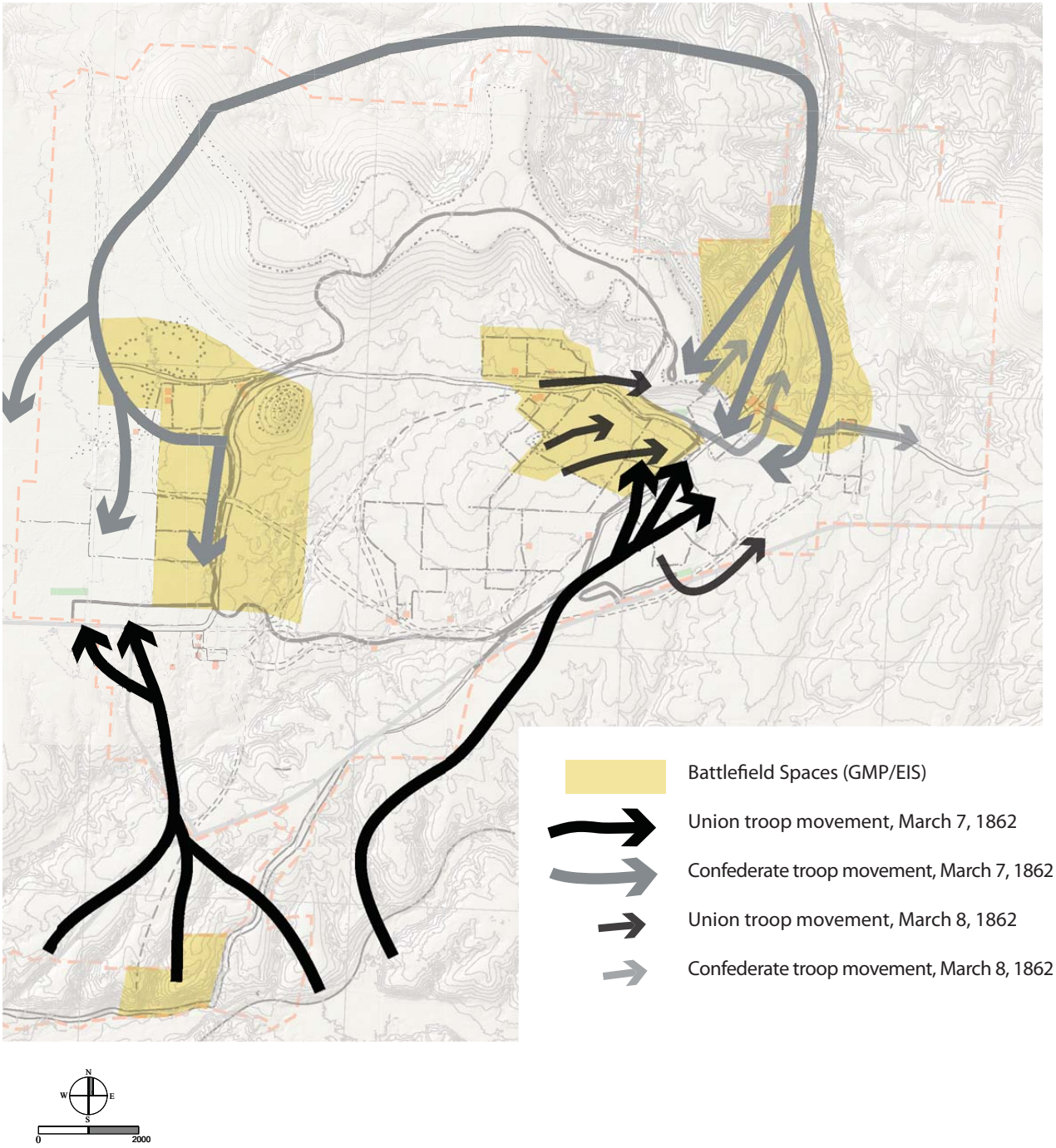


Figure 6-4. The spaces associated with the battle would be preserved, including the battlefield spaces of Leetown Battlefield, Morgan's Woods, fields and pastures associated Welfley's Knoll and the Elkhorn Tavern (Source: MB 2013).

5. Non-extant buildings, structures and features present at the time of the battle would be marked to assist in defining the spatial organization.

    a. The size, form and mass of historic features would be conveyed. This would illustrate the spatial arrangement of the historic farms in relation to how the battle was fought around those obstacles.

6. After archeological research has confirmed the locations of buildings in the Ford area, they would be identified visually. The locations of buildings, outbuildings, gardens, fields / pastures, and other vegetation would be marked to convey the spatial arrangement of 1862.

7. Ruddick's Field would be preserved and marked as the location where the travelers along the Trail of Tears had camped.

8. If additional parcels are acquired as recommended by the GMP/EIS, these would be maintained to reflect the spatial qualities of the historic setting (field or woodland, dependent on the historic use).

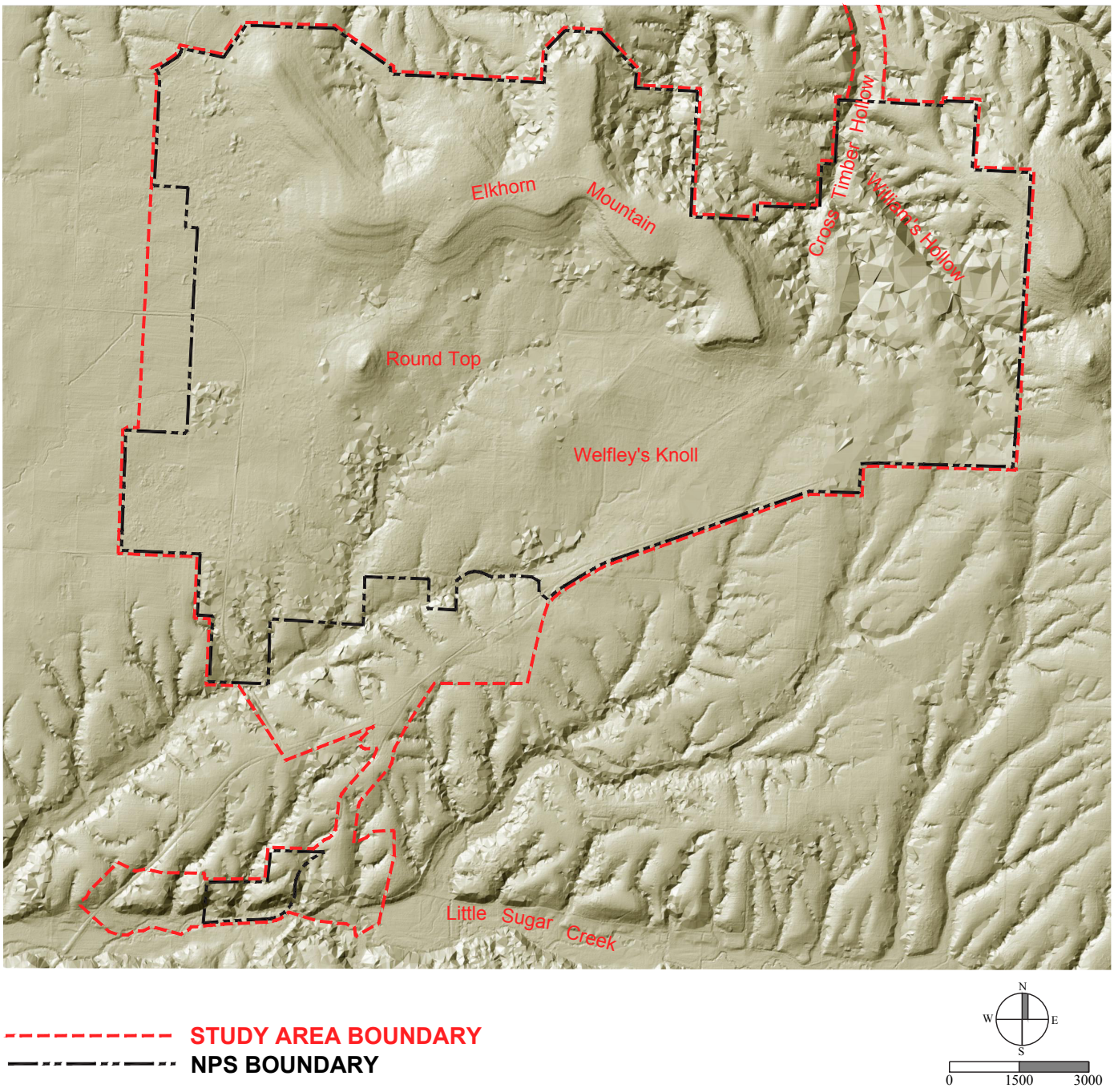


Figure 6-5. The topography and landform would be preserved as they influenced the Battle of Pea Ridge (Source: MB 2013).

Study Area

Topography and Landform

The topography and landform of the cultural landscape would be preserved. The uplands of Elkhorn Mountain and Round Top contrast with the hollows of Cross Timber and Williams Hollow, and the Sugar Creek Valley. These topographic forms influenced the Battle of Pea Ridge. They have been modified only slightly with by construction that post-dates the period of significance.

1. The native topography and landform of the cultural landscape would be preserved. Measures would be undertaken to convey the significance of these features to the battle.

    a. Elkhorn Mountain, Round Top, Welfley's Knoll, Cross Timber Hollow, Williams Hollow, and the bluffs of Little Sugar Creek contribute to the setting of the battle.

    b. The rock outcropping of Elkhorn Mountain would be preserved and fully revealed through the thinning and removal of vegetation.

    c. The topographic rise of Welfley's Knoll would be preserved. It historically provided views to the surrounding fields during the battle.

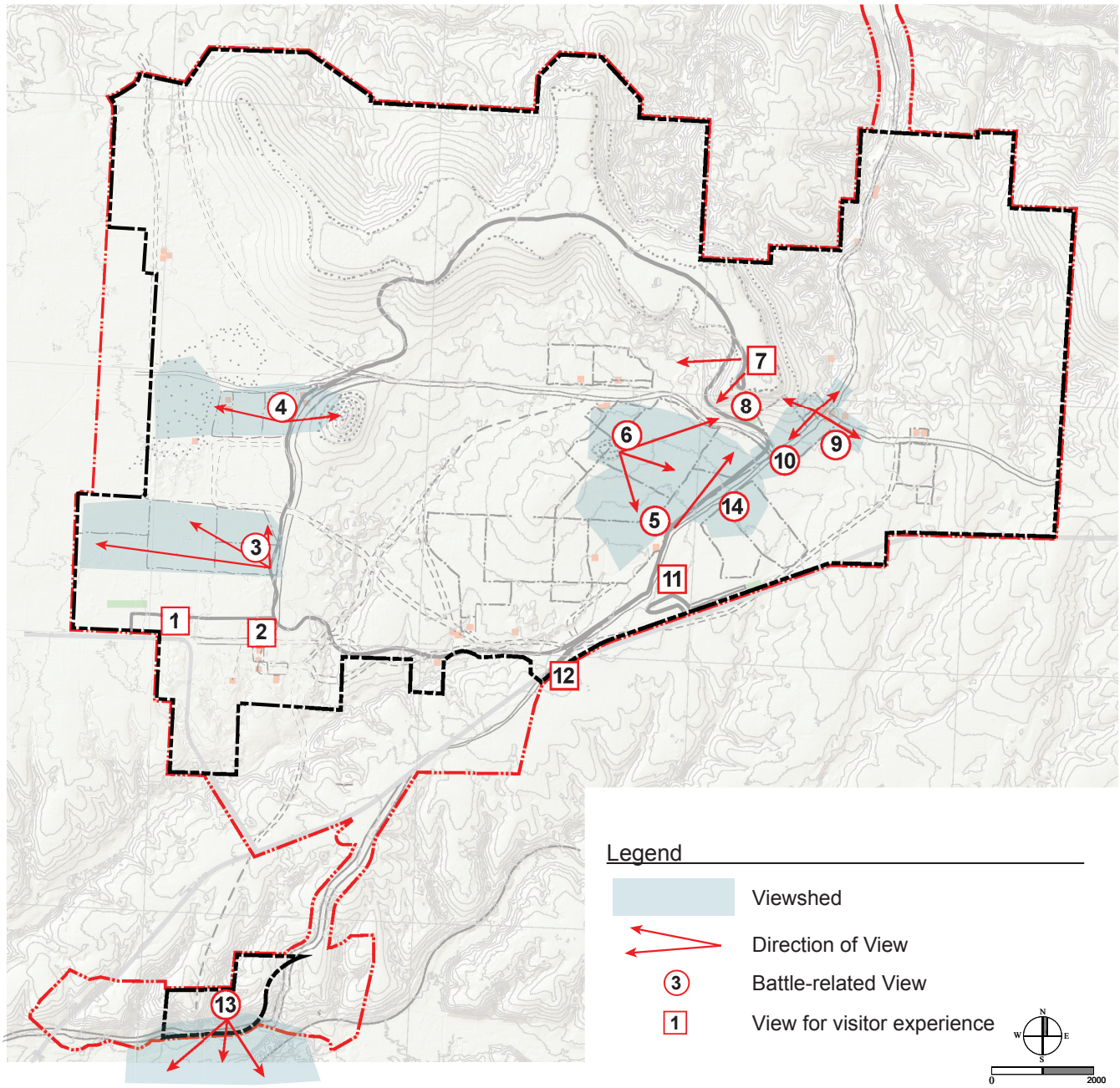
    d. The steep and narrow topography of Williams and Cross Timber hollows would be preserved.

    e. The rolling topography of the historic agricultural fields would be preserved. Measures would be undertaken to convey those that had a role in the battle.

2. Where contemporary roadways or other non-contributing features modified the native topography, the landform would be repaired to its historic appearance.

3. Minor alterations to the topography to build new portions of the Tour Road or to modify the existing Tour Road would be allowed.

    a. After removal of the west overlook, the natural slope would be reestablished.



1 View to new visitor center from Highway 72

2 View to Leetown Hamlet from new tour road

3 View to Leetown Battlefield

4 View to battlefield

5 View across fields

6 Views from/to Welfley's Knoll

7 Panoramic views of battlefield from east overlook

8 View to Rock Outcropping on Elkhorn Mountain

9 View towards Elkhorn Tavern

10 View from Elkhorn Tavern to fields

11 Make visitor center less visible

12 View to park entrance from U.S. Highway 62

13 View to valley from Federal Trenches

14 View to Ruddick's Field

Figure 6-6. Views and vistas reveal scenes and relationships that were important during the Battle of Pea Ridge (Source: MB 2013).

Study Area

Views and Vistas

The views and vistas of the cultural landscape reveal scenes and relationships that were important during the Battle of Pea Ridge (Figure 6-6.). Views integral to the battle would be restored. Others that convey the setting and feeling of the landscape present during the period of significance would be reestablished.

1. Measures to preserve or restore historic views and vistas to and from Elkhorn Mountain would be undertaken (#8).

    a. Existing views towards Elkhorn Mountain from the battlefields would be reestablished through removal and thinning of non-contributing vegetation.

    b. Native rock outcroppings of Elkhorn Mountain's south bluff would be made visible from the battle fields.

2. Views and vistas within, and of, open fields and pastures associated with the battlefield would be preserved and restored. This would emphasize the view of the battle as it was experienced by the soldiers.

    a. Historically open areas would be maintained free of obstructions and large vegetation to provide historic views and vistas.

    b. Views from specific battlefield locations would be preserved or restored.

        - View to Leetown Battlefield from the northwest corner of Foster's fields (#4);

        - View to and from Welfley's Knoll—the view of the entire battlefield (#6).

3. Views that assist in interpreting the battlefield from the Tour Road and tour stops would remain including the following.

    a. The views from the east overlook would be preserved (#7). Views towards the overlook and shelter would be modified to be less visible.

    b. View towards Round Top (#4);

    c. Views across Oberson and Mayfield's fields (#3).

4. The visitor center would be made less visible from the battlefield. Native vegetation would screen the building. Views towards the battlefield would remain (#11).

5. The new visitor center would be sited to be visible from relocated Highway 72 (#1).

    a. The facility would be set within a backdrop of forested vegetation, in historic patterns and densities.

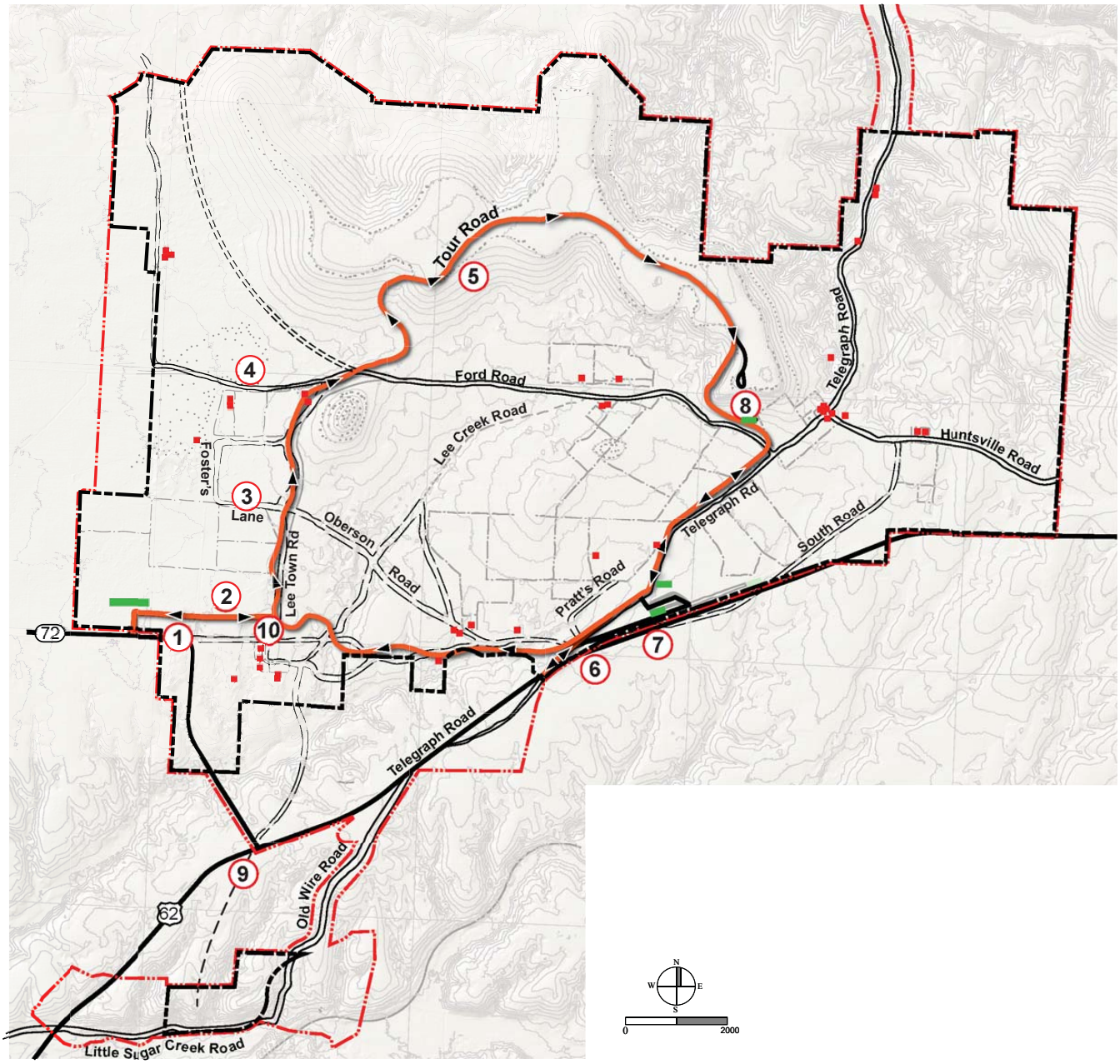
    b. The area between the visitor center and Leetown Hamlet would be reestablished to historic vegetation patterns and densities.

6. Measures to minimize the visual impact of proposed development outside the park boundaries would be undertaken.

    a. Collaboration with local, state and federal municipalities would assist in locating development outside views and vistas of the cultural landscape.

    b. Design utilities to be visually unobstructive to minimize impact.

    c. If utilities are placed within views from the park, screen visible elements using vegetation or other means.



Legend

- Tour Road
- Road
- Major Historic Road
- Historic Road Trace
- Historic Road

1. Relocate Highway 72 to Old Leetown Road
2. Connect visitor center/Tour Road
3. Historic Roads, Typical
4. Extend Ford Road
5. Eliminate west overlook
6. Reroute U.S. Highway 62
7. New horse trailer/trailhead parking
8. Reroute tour road/new parking for Elkhorn Tavern
9. New pedestrian access to Federal Trenches
10. New tour stop for Leetown Hamlet

Figure 6-7. Historic routes would be preserved and repaired (Source: MB 2013).

Study Area

Circulation

Many features of the circulation system that existed at the time of the battle remain within the park. Historic roads from the period of significance remain, including some built in the 1830s and 1840s. Overlain on the historic circulation routes are roads built or modified later. Some were built in the 1940s. The Tour Road was added in the 1960s to provide visitor access and interpretation. It still provides the vehicular route for the park.

This system of historic and contemporary roads would remain. Some modifications would be made to the Tour Road to better preserve the historic site. Roads in use in 1862 would be preserved and fully researched and investigated. Roads built after 1865 and not needed for park functions would be removed.

The circulation system would use historic routes for pedestrian and equestrian use when feasible/practicable. Existing roads and a few additions would provide bicycle and vehicular use.

1. Historic road routes and alignments would be identified and preserved.

2. The major historic roads would be preserved and repaired to convey the major circulation routes that existed at the time of the battle.

    a. Telegraph, Ford and Huntsville roads would be repaired to reflect the 1862 appearance. Additional research would be undertaken to confirm historic road alignments, widths and surfacing.

    b. Telegraph Road would be repaired and stabilized as it descends Cross Timber Hollow to eliminate erosion and degradation of the road surface.

        - In segments where the Tour Road is to be removed and relocated, the historic alignment of Telegraph Road would be reestablished. This would include the segment near Ruddick's Field.

        - This segment would become an important pedestrian route as it is the Trail of Tears National Historic Trail as well as the route of soldiers during the battle.

    c. Ford Road would be reestablished along its original alignment to the west of Leetown Road, in the area of the Ford Farm, and from the Ford Farm to the intersection of Telegraph Road. The roadway would be repaired to match the historic alignment, width and surfacing. Obstructions would be removed.

3. The historic roads would be preserved and repaired to reflect the historic alignment and width. Pedestrian and equestrian use would be allowed when feasible/practicable, with maintenance tailored to the use.

    a. Foster's Lane, Leetown Road, Pratt's Road, Lee Creek Road, and South Road would be preserved as contributing features.

    b. The park loop trail and horse trail would be realigned along historic routes as pedestrian and equastrian where and when feasible, and where maintenance can accommodate use.

    c. This approach would be consistent with the 1963 master plan that noted historic roads should be trails, and with the recommendations of the GMP/EIS.

4. Non-contributing circulation routes and features that do not serve a park function would be removed. These would include roads built after 1865, county roads built in the 1940s, and contemporary roads. Short segments of these roads could remain where they provide a park function.

    a. Alvin Seamster Road would be removed. The roadway would be returned to the historic condition including natural topography and vegetation.

    b. Routes that are removed would be revegetated according to the vegetation types noted in the VMP. These routes could remain if they become less visibly noticeable over time.

5. Contemporary vehicular routes would be rerouted to preserve the historic battlefield landscape.

    a. U.S. Highway 62 would be rerouted to outside the park boundary as per the U.S. Highway 62 Mitigation EA. This road would be realigned to the south edge of the park. The existing roadway would be used for a realigned park road.

    b. Access and parking for the horse trail would be relocated west southwest of the visitor center. The park road would be extended along the alignment of U.S. Highway 62 once it is relocated. New improvements would be set on the former roadbed to minimize disturbance.

    c. Arkansas Highway 72 would be rerouted outside the park boundary. The road would be realigned to the west edge of the park, following the alignment of Old Leetown Road as per the GMP/EIS.

    d. Removed routes would be returned to the historic condition, i.e., topographic form, and revegetated according to the vegetation types noted in the VMP.

6. The Tour Road would remain the primary vehicular route. It would be slightly modified to minimize impacts on the historic battlefield and to function with the future visitor center. Tour stops would remain with the exception of those modified for the new vehicular route.

    a. The Tour Road would be extended to access the new visitor center / facility complex on the west side of the park. This segment would be a two-lane road connected to the existing Tour Road.

        - The Tour Road would extend from rerouted Arkansas Highway 72 / Old Leetown Road to the new visitor center / facility complex.

    b. The Tour Road between the east overlook and Elkhorn Tavern would be removed and relocated.

        - The road and new parking area would be set outside of historic spaces, and aligned to minimize their presence and to reduce its visibility from the battlefield.

    c. The west overlook would be removed and the area returned to a natural condition.

        - The parking area, terrace and stone walls and planters would be removed. Documentation of the features associated with the Mission 66 program would be undertaken prior to removal.

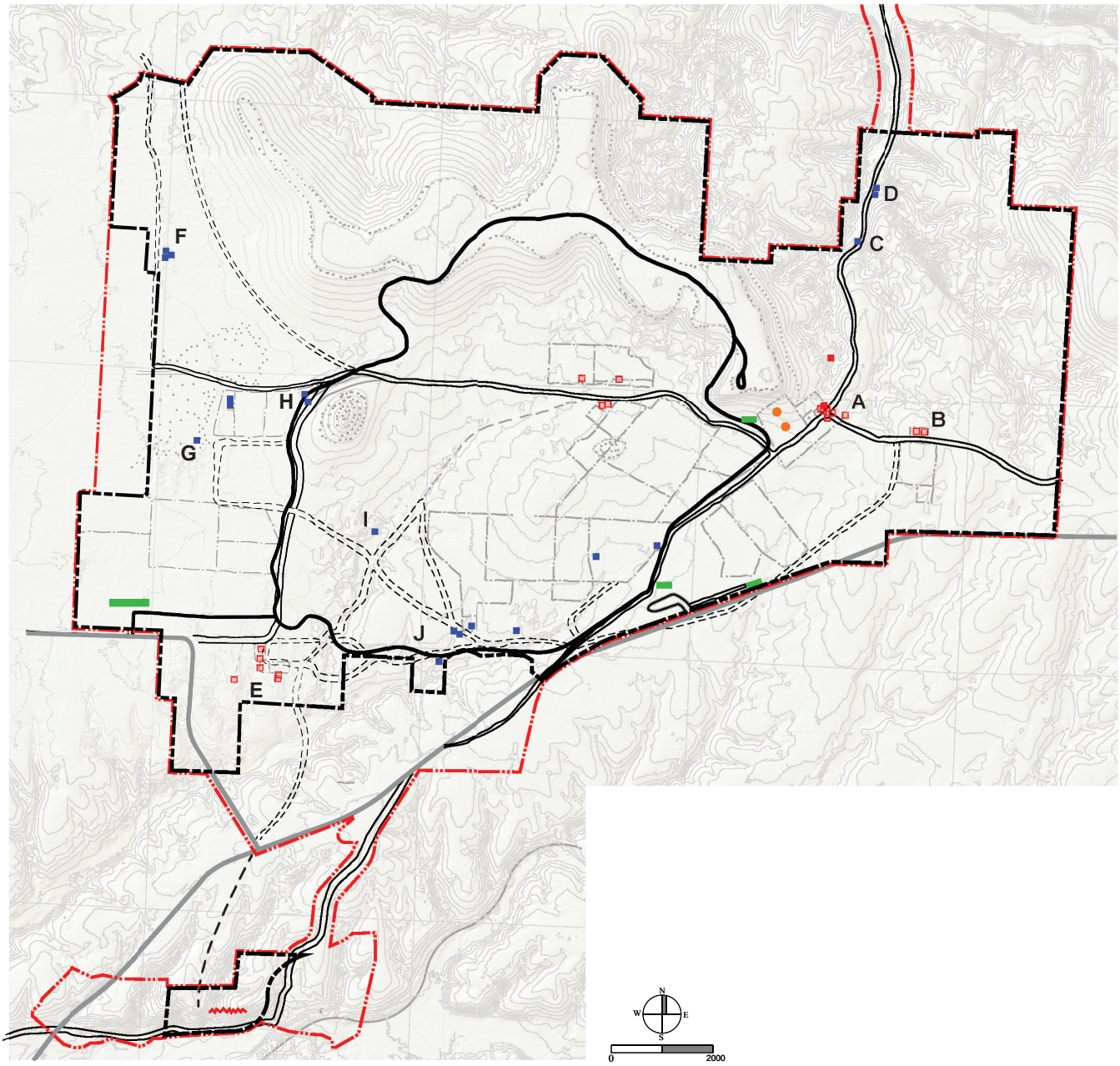
d. Bicycling use would continue on the Tour Road.

e. At the time the new visitor center is completed, tour stops could be revised so that the first stop would occur near Leetown Hamlet. This would require a new parking area and pedestrian route to Leetown Hamlet.

7. Where possible, connections to the adjacent community's pedestrian trails along the park boundary would be made.

8. Temporary mown paths would access the battlefield and other historic spaces. This would include routes from Ford Road with access to the battlefield, Ford's Farm, and Welfley's Knoll.

9. Universal accessibility may be provided to Elkhorn Tavern, east overlook, and Leetown Hamlet.



Legend

- Stabilize Building / Structure Remnants
- Identify / Mark (Ghosting)
- Repair / Rehabilitate Building / Structure
- NPS Facilities (Existing / Proposed)
- Repair Monuments
- Repair Trench

Buildings/Structures

A Elkhorn Tavern
B Clemen's Farm
C tanyard
D unidentified
E Leetown Hamlet
F Amos J Patterson
G Wiley Foster
H Sturdy Cabin
I Log Cabin (Morgan's Woods)
J Winton Springs House

Figure 6-8. Elkhorn Tavern would be preserved. Non-extant building and structures that were present at the time of the battle would be identified and marked (Source: MB 2013).

Study Area

Buildings and Structures

Contemporary buildings that provide park functions include those built as part of the Mission 66 program—visitor center, administration office, maintenance buildings, and east overlook.

The only extant building or structure associated with period of significance is the reconstructed Elkhorn Tavern. The remainder of buildings and structures from the time of the battle are no longer standing.

Treatment would focus on identifying and marking non-extant buildings that were present at the time of the battle. By marking these, the landscape would reflect the agricultural community of farms that were within the area of the battle.

1. Archeological research and investigations would be undertaken to identify historic locations, and sizes of buildings and structures.

    a. Focused research into individual families would be undertaken, and would be used in the interpretation of non-extant features.

2. Buildings and structures associated with the historic setting would be marked to indicate their historic location, scale and form.

    a. Markings could be minimal such as outlining a foundation with a stone or wood-framed base.

    b. Ghosting would include three-dimensional methods. Taller elements would be used at corners to delineate the mass of a building or structure. A more assertive undertaking would mark all elevations or facades.

3. A new visitor center / facility complex would be completed on the west edge of the park as recommended by the GMP/EIS.

    a. The new buildings and structures would be compatible with the historic setting. The mass, scale and form of the new features would be designed to minimize its appearance from the battlefield.

4. The existing visitor center / facility complex would be screened to minimize its presence within the historic setting.

    a. The buildings and structures associated with the original park construction and the Mission 66 program would be evaluated to determine their significance.

    b. The north elevation of the building would be screened using strategically placed trees with a native understory planting.

    c. After the facilities are removed, some utilities would remain and be abandoned.

5. Extant building and structure remnants in known locations would be stabilized.

    a. These structures would be maintained as important features unless archeological evidence and testing indicates they are not from the period of significance.

        - Winton Springs House
        - Log Cabin (Morgan's Woods)

6. Known building foundations of non-extant buildings from the period of significance would be identified and marked.

    - Amos J. Patterson
    - Wiley Foster
    - Sturdy Cabin
    - J. Ruddick
    - G.W. Ford House and Barn

7. Extant building or structure remnants, wells, cisterns and other features not directly associated with the battle or not in existence at the time of the battle would be evaluated.

    a. Those features not associated with the battle would be stabilized to minimize safety hazards. For example, a well would be filled with sand or soil.

    b. Those that may date to the 1860s or 1880s would be stabilized and repaired. If a connection can be made to the 300 or so people residing in the Pea Ridge area at the time of the battle, the extant features would be preserved and interpreted.

    c. Further study would determine an association with the family farms present at the time of the battle. If a feature is directly associated with the battlefield, it would be considered contributing to the cultural landscape.

Study Area

Small Scale Features

Small scale features would continue to be used and modified to enrich the visitor experience by providing information and interpretation. Some features of the Tour Road would be modified.

The one small scale feature that contributes to the historic character of the cultural landscape, the U.S. Army Headquarters Monument, would be preserved.

1. Contemporary small scale features—park signs, interpretive fencing, artillery replicas—would remain. They would be updated as needed to provide information and interpretation. Those not needed would be removed.

    a. Features that assist in maintaining an authentic look or feeling, or that provide a functional amenity would remain or be added as needed.

        - The emplacement of replica artillery to interpret the battle would continue.

        - Other interpretive elements such as replica tents, wagons or equipment that would have been used during the battle would be allowed.

        - All features would be placed in locations that correlate to movements on the battlefield.

    b. At the time the road to the existing visitor center is rerouted, the stone entrance walls, entry monuments, split rail fence and NPS sign would be removed.

    c. Interpretive and informational signs would be updated and replaced as needed. New signs would be of a similarly low-profile and unobtrusive design.

2. Features associated with the tour stops would be repaired where the tour stop is proposed to remain and where the function and use of the feature is to remain.

    a. The stone walls at tour stop 2 would be removed as they are in disrepair and no longer serve an interpretive function. The site was built as part of the Mission 66 program.

    b. The west overlook, tour stop 6, would be removed. All associated features would be removed including the parking area, walkways, terrace, the stone walls and raised planters. The west overlook and most of its features were built as part of the Mission 66 program.

    c. Small scale features associated with the east overlook, tour stop 7, would be preserved and repaired. Treatment is described under the Elkhorn Tavern / Williams Hollow landscape character area.

    d. Features associated with the Mission 66 program and built during the initial construction of the park facilities would be documented according to the NPS HALS standards.[6.2]

3. The U.S. Army Headquarters Monument would be preserved and repaired.

4. The use of new non-historic worm fences to delineate historic fence alignments would continue.

    a. Worm fences would be installed in locations supported by research and investigations.

    b. A simpler fencing type would be used for the protection of resources or for other functional needs.

        - A wood post and wire fence would be installed for non-historic uses or to manage use.

5. A cemetery management plan would be undertaken for Ford Cemetery.

    - The plan would provide research into the development of the cemetery, evaluation and documentation of features, and recommendations for treatment.

6.2 HALS is the Historic American Landscape Survey.

Study Area

Vegetation

The vegetation patterns within the park would be reestablished to visually represent the historic patterns of fields, pastures, and farm spaces surrounded by woodlands and forests that would have existed during 1862. Historic vegetation would be preserved.

1. Historic vegetation patterns would be preserved and reestablished to fully reflect the historic conditions.

2. The treatment of vegetation within the study area would be guided by the Vegetation Management Plan (VMP).

    a. The VMP would guide vegetation changes within the park, including areas to be reforested, and areas of cedar removal and thinning.

    b. The VMP would guide the restoration of Round Prairie. The prairie would be preserved, and restored to reflect its historic size and configuration, and species composition.

3. The patterns of the historic agricultural spaces would be reestablished using similar or in-kind species.

    a. Species that depict the historic form, function and aesthetics of the historic vegetation would be used.

    b. Species that are suited to contemporary conditions (i.e., to accommodate climate change) and maintenance practices would be allowed.

    c. Planting crops that depict the historic species, as delineated in the VMP, could be undertaken where manageable by park staff.

4. Historic woodland and forest patterns and spaces would be reestablished using native species with a composition and density similar to what existed historically, per the VMP.

    a. Native species or species similar in form, function and aesthetic to the historic species would be planted.

    b. Existing trees that disrupt the historic patterns and invasive species such as cedars would be removed.

        - Vegetation would be removed using mechanical means as described in the VMP.

5. Historic trees (i.e., those present during the period of significance of 1862 to 1865) would be preserved.

    a. Further investigations would be undertaken to identify all extant trees that were present during the time of the battle.

6. Further research would be undertaken to identify plant species associated with each historic space. Trees within historic spaces planted for interpretation would be allowed to remain.

    a. Archeological investigations would be undertaken to identify the extent of the historic setting of the family farms including fields, pastures and gardens.

7. Vegetation on Elkhorn Mountain would be modified in areas associated with the battle to better reflect the character of the landform and vegetation patterns that existed during the 1862 battle.

    a. Vegetation on the east rock outcropping of Elkhorn Mountain would be modified to reveal the historic landform, topography and character.

        - Large trees and invasive species such as cedars would be removed. Trees would be thinned and removal of undergrowth vegetation would be undertaken to fully convey the 1862 appearance of the bluff / rock outcropping.

        - Vegetation would be managed to maintain the exposed appearance of the rock outcropping.

    b. The cedar trees behind the east overlook shelter would be removed to assist in making this shelter less visible from below.

        - Vegetation below the shelter would be modified as noted for the rock outcropping.

        - Vegetation would be maintained to ensure a full and open view of the battlefield below while screening the structure from below.

8. The historic vegetation patterns of the Ford Farm and surrounding area would be reestablished to reflect the historic appearance at the time of the battle. This would be undertaken to depict the historic spatial quality of the farm landscape.

    a. The spaces of the agricultural fields and gardens would remain similar to the current arrangement as it is representative of the historic size and configuration.

    b. Historic vegetation or the use of similar or in-kind species would be used to depict the types of crops and the patterns in which they were grown. Grasses could be used to depict corn or hay crops.

    c. The space of the orchard would be maintained to distinguish it from other types of crops. The peach trees within the orchard at Ford's Farm would be preserved. Additional trees would be added if substantiated by further research.

    d. Ford Cemetery would be a lawn area surrounded by woodland forest. The full extent of the cemetery would be identified and investigations undertaken to identify historic plant species.

Leetown Hamlet

The small settlement of Leetown Hamlet served an important role as a field hospital during the Battle of Pea Ridge. The area now has few above-grade features. Leetown Hamlet would be preserved as an archeological landscape.

The site would be the focus of further archeological research and investigations to uncover the full extents of the settlement, and those features that historically comprised the town.

The focus of treatment would be to reestablish the historic spatial qualities of the town setting by delineating historic spaces, circulation, features and vegetation (Figure 6-9.).

Leetown Hamlet Treatment Goals

i. Spatially depict the full extent of Leetown Hamlet proper within its historic context;

ii. Reveal the town's historic relationship with the topography, landform and vegetation that existed at the time of the battle;

iii. Reveal the extent of the 'town' versus the adjacent fields. Reveal the town's historic features — roads, buildings/structures, fences, trees and vegetation;

iv. Reveal the historic landform and topography through vegetation removal, thinning, and management;

v. Manage Leetown Cemetery as an important historic feature.

Archeological Sites

Leetown Hamlet in its entirety is an archeological landscape, composed of archeological sites. Within this archeological landscape are below-grade features that may include foundations and remnants of buildings and structures present at the time of the battle. Some above-grade features may exist such as fence alignments.

1. Archeological investigations would be undertaken to assist in defining the full extent of the historic town and the relationship of its historic components.

    a. The location, scale and form of historic spaces, buildings and structures would be identified.

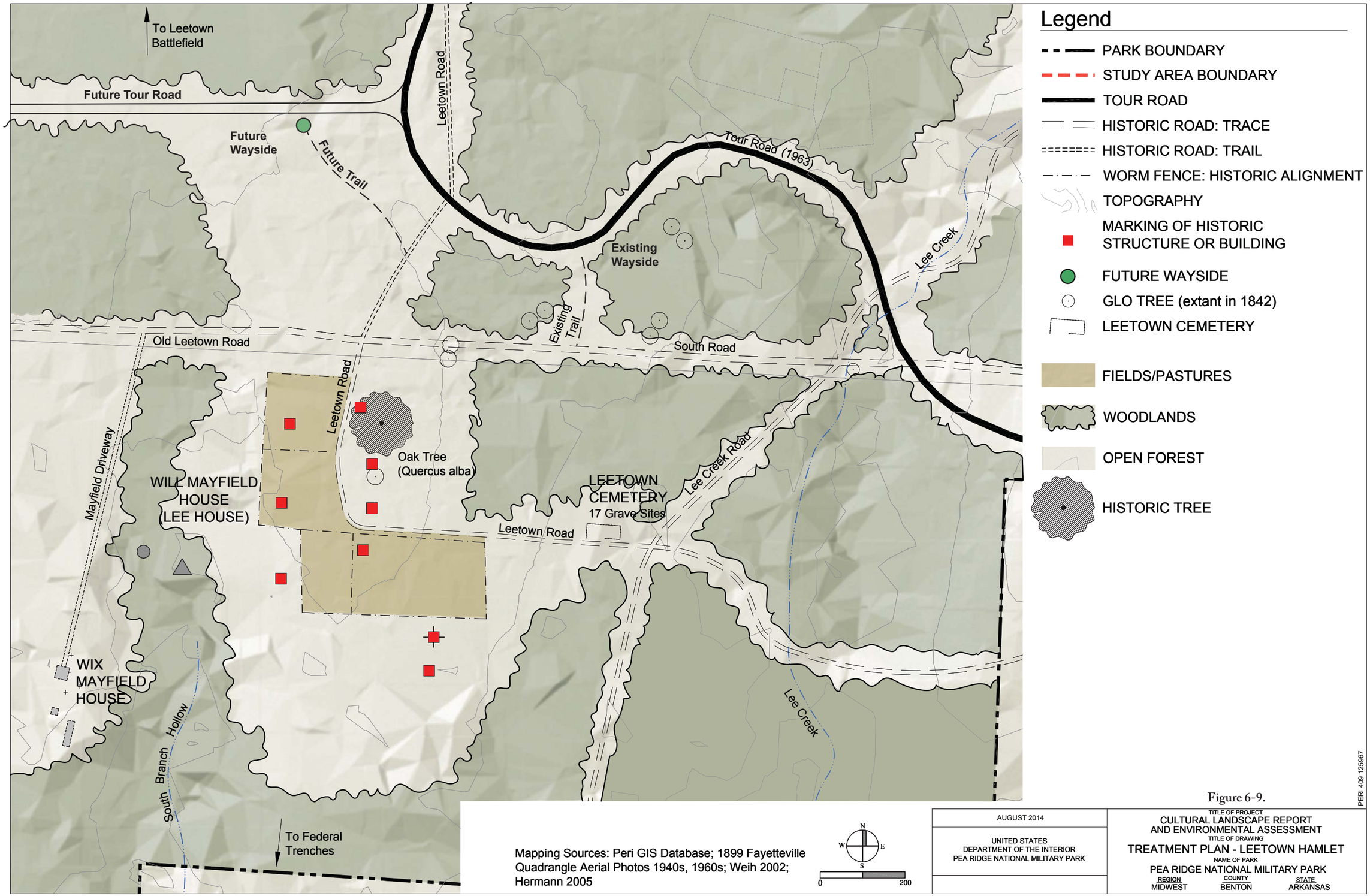
    b. Investigations would build upon the previous studies.

    c. Actions would include some limited ground disturbance.

2. Additional research would be undertaken to identify families that resided in Leetown Hamlet during the battle.

    a. This research would assist with the interpretation of the town, and identification of historic buildings and structures.

3. Archeological investigations would be undertaken to determine the precise extents of Leetown Cemetery and the extent of the burial sites.



Mapping Sources: Peri GIS Database; 1899 Fayetteville Quadrangle Aerial Photos 1940s, 1960s; Weih 2002; Hermann 2005

AUGUST 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
PEA RIDGE NATIONAL MILITARY PARK

TITLE OF PROJECT
CULTURAL LANDSCAPE REPORT
AND ENVIRONMENTAL ASSESSMENT

TITLE OF DRAWING
TREATMENT PLAN - LEETOWN HAMLET

NAME OF PARK
PEA RIDGE NATIONAL MILITARY PARK

REGION: MIDWEST | COUNTY: BENTON | STATE: ARKANSAS

PERI 409 125967

Figure 6-9.

Leetown Hamlet

Spatial Organization

The spatial qualities of Leetown Hamlet would be reestablished to depict the historic spaces and features that existed at the time of the battle, and their relationships to one another.

1. The size, scale and spatial arrangement of the town area and its relationship to its natural surroundings would be reestablished.

    a. Based upon information from the archeological investigations, the outlines and extent of the town would be identified using vegetation, fencing or other simple means.

    b. The historic relationship of Leetown Hamlet within the natural topography, landform and vegetation would be conveyed with the reestablishment of the town's spatial arrangement.

2. The arrangement of buildings and structures within the town setting, as well as to one another and to other features, would be reestablished to provide a sense of the historic scale of the town.

    a. Based upon information from the archeological investigations, the outlines of known buildings and structures would be identified by marking or other simple means.

Leetown Hamlet

Circulation

Historically, Leetown Hamlet was connected to the larger Pea Ridge community by Leetown, Lee Creek and South roads. These historic roads would be reestablished along historic alignments as the primary means of pedestrian and maintenance
circulation.

Vehicular circulation is not anticipated for Leetown Hamlet. Where connections to the Tour Road are not possible via historic routes, additional pedestrian trails would be added.

1. Further research would be undertaken to accurately locate the alignment of Leetown Road within Leetown Hamlet, and to confirm the historic alignment of Lee Creek Road and South Road.

2. Leetown Road would be repaired to reflect its historic condition within Leetown Hamlet.

    a. The road alignment and width would be repaired to match the historic road condition. Surfacing could be a mown path or a soft-surface such as compacted dirt.

    b. Leetown Road would be the primary pedestrian route to, and within, Leetown Hamlet.

3. Lee Creek Road would be repaired within the area of Leetown Hamlet, and to the southern park boundary.

    a. The road alignment and width would be repaired to reflect the historic road condition. Surfacing would be a soft-surface such as compacted dirt.

    b. If the area to the south is acquired as recommended by the GMP/EIS, the repair of Lee Creek Road would extend to the study area boundary.

4. Old Leetown Road was a historic route at the time of the battle. In the 1940s, it was graded, repaved and widened as part of the county road system construction.

    a. The 1940s road alignment between the west park boundary and Leetown Hamlet would remain. It is likely that this route was present at the time of the battle.

    b. The route would be maintained as a pedestrian trail and interpreted to note the difference between this route and other contributing historic roads.

5. Once the new visitor center / facility complex is built as recommended in the GMP/ EIS, Leetown Hamlet would become the first tour stop on the Tour Road.

    a. An extension of the Tour Road would be made to connect the new visitor center to the existing Tour Road. The extension would be located north of Old Leetown Road.

    b. A new tour stop with parking would be developed on the south side of the new Tour Road extension. A pedestrian route would be added to connect the tour stop with Leetown Hamlet.

    c. Additional pedestrian routes could be developed including one along Old Leetown Road.

Leetown Hamlet

Buildings and Structures

Leetown Hamlet has no extant above-grade buildings or structures. According to historical accounts, between ten and fifteen buildings or structures within the settlement were used as military hospitals during the battle. Archeological investigations have confirmed some of these features.

The number, location, form and scale of the historic buildings and structures would be identified to convey the size and extent of the historic setting.

1. Additional investigations would be undertaken to more conclusively identify the location and size of building and structures associated with Leetown Hamlet at the time of the battle.

    - Research into associations to specific families or residents would be undertaken.

2. Known historic features would be preserved.

    - Remnants of Mayfield / Lee House would be preserved. Further research would be undertaken to confirm date of construction.

3. Known buildings and structures would be marked to depict the historic scale of the town that was present during the battle.

    a. Features identified as historic building or structure remnants would be preserved.

    b. Based on information from the archeological investigations, the outlines and forms of buildings and structures would be marked using vegetation, wood framing or other simple techniques.

- Techniques could include outlining a known foundation using a simple wood or stone frame.

- Marking the outline of a structure could include the use of stacked stones or low growing vegetation.

c. If adequate information can be attained, three-dimensional 'ghosting' of buildings and structures could occur.

- Techniques could include installing three-dimensional markers at each corner of a building or outlining a building form with a low stone or wood frame.

4. Remnants of non-historic buildings and structures would be documented and removed to the extent possible. If removal is not possible, documentation would note these as non-historic.

Leetown Hamlet

Small Scale Features

Historically, fences and other features would have defined property ownership and individual spaces. Fences would be reestablished to convey the historic spaces that existed at the time of the battle.

Wells, cisterns or other features may be present from the period of significance.

1. Known historic small scale features would be preserved.

- Mayfield / Lee well or cistern
- Mayfield site wells

2. The use of new non-historic fences to delineate historic fence alignments within Leetown Hamlet would continue.

a. Fences would be installed in historic locations where alignments are confirmed by research and investigations.

b. The use of non-historic worm fences would continue. Should research reveal additional information about historic fence types, the fencing could be modified to be historically accurate.

3. A different fencing type would be used for protection of resources or for other functional needs.

a. A simple fence of slightly different construction or dimensional quality would be used.

b. The utilitarian fence could be cable or wire with simple wood unpainted posts.

4. A new fence would be used to delineate the perimeter of Leetown Cemetery.

a. The fence would be a simple, unadorned wood fence or cable with wood unpainted posts.

Leetown

Vegetation

The historic character of the 1862 vegetation would be reestablished within Leetown Hamlet and the immediate surroundings, and between Leetown Hamlet and Leetown Battlefield.

1. The vegetation patterns that existed at the time of the battle would be reestablished. These likely included plantings at buildings, nearby crops within fields, and the surrounding oak and hickory forest.

    a. Based on archeological investigations the historic extents of the settlement would be delineated.

    b. Plantings would be installed according to the historic use of individual spaces.

        - Low growing plants or mown native grasses would be used within the town extents and within individual properties. The town extents would be kept relatively clear of trees and shrubs.

        - Taller native grasses or other similar vegetation would be used within agricultural fields to distinguish these spaces.

        - The oak and hickory forest would be restored to reflect the historic species and composition of species as identified in the VMP.

2. Historic trees and plantings (i.e. those present during the period of significance of 1862 to 1865) would be preserved. Mature trees would remain until they are determined to be non-historic.

    a. According to GLO notes and field investigations, some trees within the oak and hickory forest may date from the Civil War. Further investigations would be undertaken to date large mature trees and to identify the full extent of historic trees.

    b. Ornamental plants determined to be historic would be preserved. Stock or cuttings of vegetation from the period of significance would remain.

3. Leetown Cemetery would be maintained as mown lawn or as an area of low groundcover plantings.

    a. Low growing groundcovers or mown lawn would be used to delineate the area of the cemetery. Further research would be undertaken to determine historic plant species within the cemetery.

    b. Shrubs and trees within Leetown Cemetery would be removed where they are impacting or could impact gravesites. Removal would be accomplished in a manner that would not damage grave sites or below-grade resources (i.e., not pulling up roots, but cutting at grade level).

4. The management of the oak and hickory forest would be guided by the VMP. The extents of the forest and its relationship to Leetown Hamlet would be determined through archeological research.

    a. The extent of the oak and hickory forest would be determined and the forest would be maintained as a healthy ecosystem.

5. The forest between Leetown Hamlet and the Leetown Battlefield, and between Leetown Hamlet and the Federal Trenches would be of a density and species composition similar to that which occurred historically.

    a. These forests would be managed to reflect the experience the soldiers had moving between the sites.

Federal Trenches

The Federal Trenches is the discontiguous parcel of the park where extant earthwork fortifications remain from the Battle of Pea Ridge. The trenches were built by the Union army and are the only known features built as part of the military battle. The focus of treatment would be to restore the trenches to their historic condition by identifying the methods used to build them (Figure 6-10.).

Federal Trenches Treatment Goals

i. Preserve and stabilize the trench and all its extant components according to best practices;

ii. Understand the construction and full extent of the trench and the work undertaken on the slopes as part of the fortification;

iii. Reveal the connection to the landform and to other trenches built at the same time (on adjacent properties);

iv. Convey the extent of work that was undertaken by the Union troops just prior to the battle;

v. Provide a safe pedestrian route to the trench.

Federal Trenches

Spatial Organization

1. The spatial distinction between the high bluff where the trench is located and the valley below would be preserved.

    a. The separation of these two spaces was critical to the Union's defensive position. This distinction would be preserved by opening views between the spaces to reinforce the feeling of separateness.

Federal Trenches

Topography and Landform

1. The existing topography and landform of the Federal Trenches would be preserved. The sense of the contrast between the high bluffs overlooking the valley floor would be preserved.

2. The physical form of the bluffs would be revealed through clearing of undergrowth vegetation and thinning of large trees as noted under Vegetation.

3. The landforms associated with other potential battle-related trenches would be further investigated to identify extant remains or landforms.

Federal Trenches

Views and Vistas

The Union army chose the bluffs above Little Sugar Creek due to the expansive view they would have of the Confederate advance from the south. The views and vistas present at the time of the battle would be reestablished.

1. The view from the top of the bluffs and the trench would be repaired to reflect the historic views and vistas.

Legend

- PARK BOUNDARY
- STUDY AREA
- ROAD / HIGHWAY
- HISTORIC ROAD
- PARK ROAD
- TOPOGRAPHY
- PARK TRAIL TO FEDERAL TRENCHES
- PARK FENCE
- REPAIR TRENCH REMNANTS
- POTENTIAL TRENCH REMNANTS
- STREAM/ DRAINAGE
- RAILROAD
- WOODLANDS
- OPEN FOREST

To Pea Ridge NMP

To Pea Ridge NMP

Old Wire Road

62

CANNON (BATTERIES)

PARKING

Little Sugar Creek Road

Little Sugar Creek

Old Wire Road

To Dunagins Farm

Mapping Sources: Peri GIS Database; 1899 Fayetteville Quadrangle Aerial Photos 1940s, 1960s; Weih 2006; Hermann 2005; GMP/EIS

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Figure 6-10.

AUGUST 2014	TITLE OF PROJECT: CULTURAL LANDSCAPE REPORT AND ENVIRONMENTAL ASSESSMENT
UNITED STATES DEPARTMENT OF THE INTERIOR PEA RIDGE NATIONAL MILITARY PARK	TITLE OF DRAWING: TREATMENT PLAN - FEDERAL TRENCHES
	NAME OF PARK: PEA RIDGE NATIONAL MILITARY PARK
	REGION: MIDWEST; COUNTY: BENTON; STATE: ARKANSAS

a. Trees and understory on the bluff and on the slope below would be thinned within the trench's line of sight.

b. Underbrush adjacent to trench would be thinned to open up this view.

2. The view towards the bluffs would be repaired to reflect the historic appearance of the slope that advancing soldiers would have encountered.

    a. The vegetation on the hillsides below the bluffs and the trench would be thinned to depict a less dense forest as would have been present at the time of the battle.

Federal Trenches

Circulation

The circulation system of the Federal Trenches consists of contemporary roads and trails. This system would generally remain in place with the exception of the pedestrian trail that would be repaired and slightly re-routed.

1. The existing parking area and road access would remain and be maintained.

2. The existing pedestrian path from the parking area to the top of the bluff would be demolished and a new path built in its place. This path would be safer and more manageable than the existing path but would not be universally accessible.

    a. The new pedestrian path would extend from the parking area along the west edge of the small valley and loop upwards to the top of the bluffs.

    b. The new path would be a built as a series of ramps and steps to accommodate the large elevation change from top to bottom.

    c. Erosion control measures would be included as part of the construction.

    d. The path at the top of the bluffs would be located outside the area of the trench and away from any potential components. The path would end at the west end of the trench.

3. A pedestrian trail would be built to connect the two discontiguous parcels of the park.

    a. The new trail would require an easement to cross private property north between the Federal Trenches and U.S. Highway 62.

Federal Trenches

Structures

The Federal Trenches would be further researched and documented to determine the full extent of the trench and all of its components. Research would reveal how the trench was constructed and how its construction related to that of other Civil War fortifications. The trench and the broader historical setting would be preserved and repaired.

1. Further research and documentation would determine the full extent of the trench construction and document all extant components. These could include earthworks on the south edge of the trench.

    a. Field investigations would be undertaken to document the trenches, and the construction by Union troops.

    b. An earthworks preservation plan should be undertaken. Research into common Civil War practices related to earthen fortifications would be undertaken to compare this trench with others and to better understand what was built.

        - Construction plans or standards that the Union army would have used to construct the trenches would be researched.

    c. The full extent of other potential trenches on adjacent bluffs may be researched and investigated.

2. The extant trench and all its components would be preserved and stabilized according to best practices.

    a. The extant trench and the area immediately surrounding the trench would be repaired to reflect the historic appearance.

    b. Large trees and shrubs would be removed using non-invasive methods. Large tree stumps would remain within the trench or within close proximity to the trench to ensure its preservation.

    c. Low growing grasses would be planted and maintained to assist in the long-term management of the trench.

3. A portion of the trench would be fully restored to convey the original construction.

    a. This work would be undertaken based on the archeological investigations and further research.

Federal Trenches

Vegetation

The vegetation of the Federal Trenches would be repaired to more closely resemble the type and density that occurred historically.

The vegetation would be reestablished to reflect the influence the Union troops had on the natural vegetation just prior to the battle.

1. The hillsides on the front side of the bluffs, between the trench and the valley below, would be thinned and large trees removed to more closely resemble the historic appearance.

    a. Large trees that obstruct historic views to or from the trench would be removed. Stumps would be removed outside the trench.

    b. Stumps would remain within the trench, in areas of archeological sensitivity or on hillsides prone to erosion.

    c. Understory vegetation would be thinned on the front hillside to open up views to and from the valley.

2. The management of the forested hillside behind the trench would be guided by the VMP.

3. Areas disturbed from the rerouting of the pedestrian trail would be regraded and revegetated with native species to control erosion.

4. The vegetation associated with the trench would be managed as noted under Structures.

Elkhorn Tavern / Williams Hollow

The Elkhorn Tavern / Williams Hollow landscape character area served a pivotal role in the Battle of Pea Ridge.

The site of Elkhorn Tavern and farm, the area's major circulation routes Telegraph Road, Ford Road and Huntsville Road and the area's topography and landform were critical elements during the battle. Elkhorn Tavern became a recognized landmark for soldiers of both sides.

The Elkhorn Tavern / Williams Hollow landscape character area would be preserved and rehabilitated as a historic site. The natural systems, historic setting and contributing features, including Elkhorn Tavern and the two commemorative monuments, would be repaired to more closely resemble the period of significance.

The entire area would be preserved as an archaeological landscape. It would become the focus of further archeological investigations to understand all components that would have existed historically.

The focus of treatment would be to reestablish the historic spatial qualities of Elkhorn Tavern / Williams Hollow through the delineation of historic spaces, circulation systems, buildings, structures and vegetation patterns (Figure 6-11, and Figure 6-10.).

Elkhorn Tavern / Williams Hollow Treatment Goals

i. Spatially depict the full extents of the Elkhorn Tavern farmstead setting and buildings within its historic context;

ii. Preserve extant contributing features including Elkhorn Tavern, the cistern, cave entrance and the two commemorative monuments;

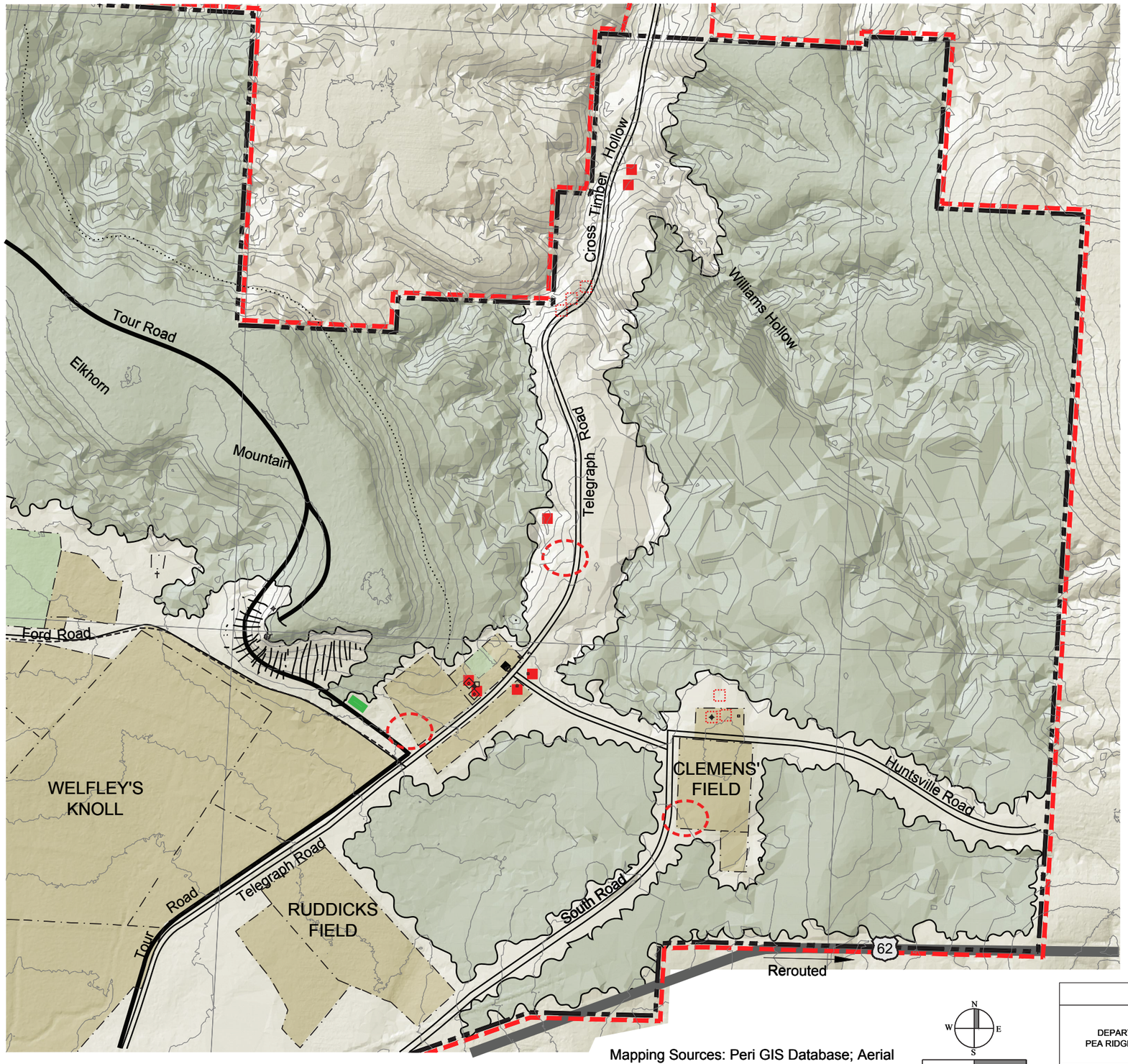
iii. Continue to be authentic to the 1862 historic setting;

iv. Reveal the extent of the original features and the relationships between these and adjacent areas that were part of the battle;

v. Reveal the historic landforms and topography including Elkhorn Mountain and Cross Timber and Williams hollows;

vi. Repair Telegraph, Ford and Huntsville roads to reflect their historic appearance;

vii. Relocate visitor facilities, including parking, roads, and restrooms, out of the core historic setting and out of views between battle-related spaces.



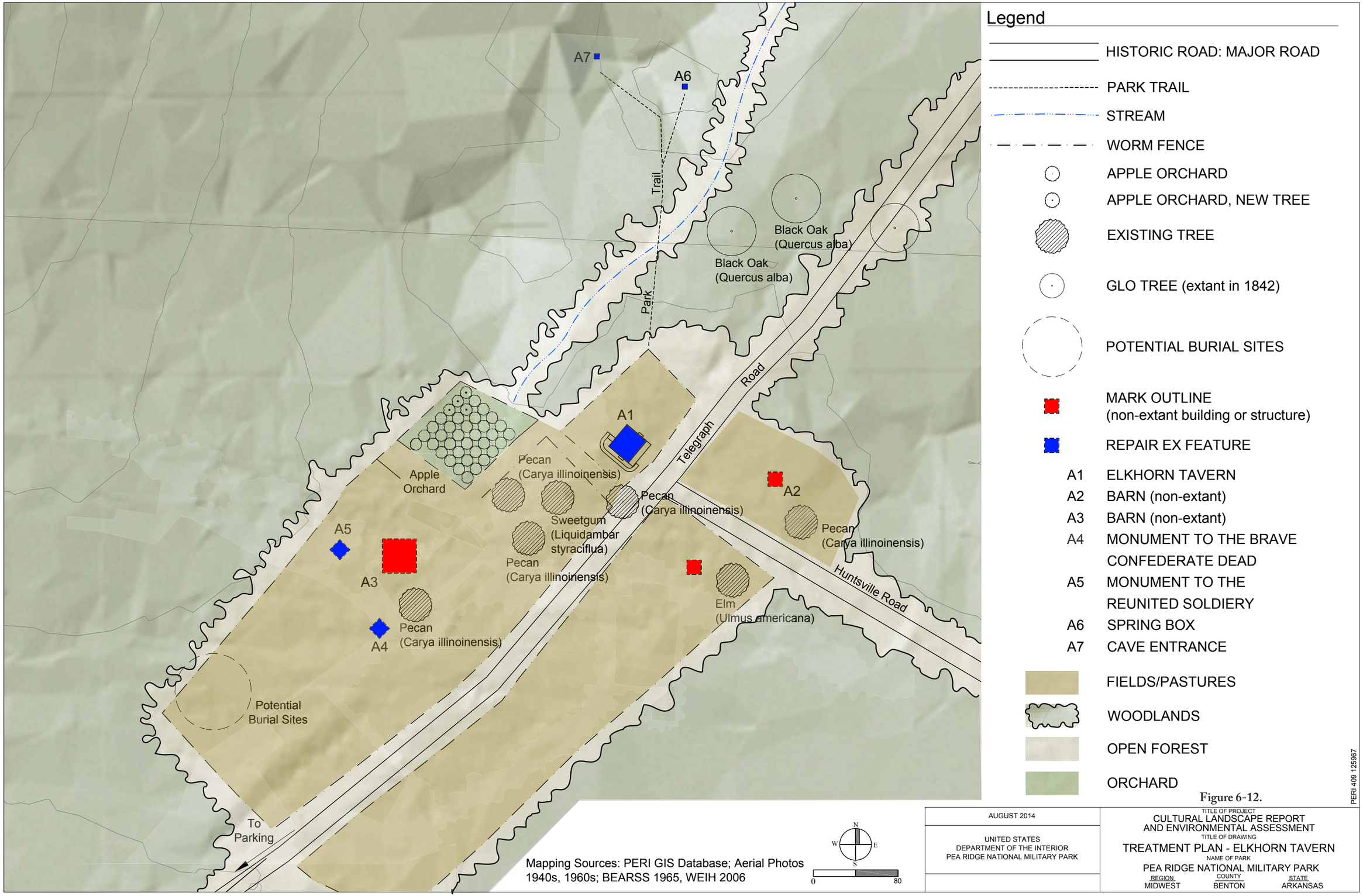
Legend

- PARK BOUNDARY
- STUDY AREA
- ROAD/HIGHWAY
- HISTORIC ROAD
- TOUR ROAD
- HORSE TRAIL
- TOPOGRAPHY
- MARK/REPAIR BUILDING/STRUCTURE FOUNDATION
- RESEARCH CIVIL WAR BURIAL SITES
- MARK OR GHOSTING OF BUILDINGS AND STRUCTURES
- VISITOR PARKING
- FORD CEMETERY
- FIELDS/PASTURES
- WOODLANDS
- OPEN FOREST
- ORCHARD
- THIN/PRUNE VEGETATION/ EXPOSE ROCK OUTCROPPING

PERI 409 125967

Figure 6-11.

MAY 2014	TITLE OF PROJECT: CULTURAL LANDSCAPE REPORT AND ENVIRONMENTAL ASSESSMENT
UNITED STATES DEPARTMENT OF THE INTERIOR PEA RIDGE NATIONAL MILITARY PARK	TITLE OF DRAWING: TREATMENT PLAN - ELKHORN TAVERN/WILLIAMS HOLLOW
	NAME OF PARK: PEA RIDGE NATIONAL MILITARY PARK
	REGION: MIDWEST; COUNTY: BENTON; STATE: ARKANSAS



Legend

- HISTORIC ROAD: MAJOR ROAD
- PARK TRAIL
- STREAM
- WORM FENCE
- APPLE ORCHARD
- APPLE ORCHARD, NEW TREE
- EXISTING TREE
- GLO TREE (extant in 1842)
- POTENTIAL BURIAL SITES
- MARK OUTLINE (non-extant building or structure)
- REPAIR EX FEATURE

A1	ELKHORN TAVERN
A2	BARN (non-extant)
A3	BARN (non-extant)
A4	MONUMENT TO THE BRAVE CONFEDERATE DEAD
A5	MONUMENT TO THE REUNITED SOLDIERY
A6	SPRING BOX
A7	CAVE ENTRANCE

- FIELDS/PASTURES
- WOODLANDS
- OPEN FOREST
- ORCHARD

PERI 409 125967

Figure 6-12.

AUGUST 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
PEA RIDGE NATIONAL MILITARY PARK

TITLE OF PROJECT
CULTURAL LANDSCAPE REPORT
AND ENVIRONMENTAL ASSESSMENT
TITLE OF DRAWING
TREATMENT PLAN - ELKHORN TAVERN
NAME OF PARK
PEA RIDGE NATIONAL MILITARY PARK

REGION	COUNTY	STATE
MIDWEST	BENTON	ARKANSAS

Elkhorn Tavern/Williams Hollow

Archeological Sites

The Elkhorn Tavern farmstead is an archeological landscape. The area includes the hospital site within Cross Timber Hollow, Clemens' House and barn site, and potential burial sites. The burial sites were temporary as the deceased were later moved to other cemeteries.

The archeological landscape of Elkhorn Tavern and each archeological site may include below-grade features related to the battle. These may be foundations or remnants of buildings and structures that stood at the time of the battle. Some ephemeral above-grade features may exist such as fence rows or alignments.

1. Archeological investigations would be undertaken to define the full extent of the historic setting and the relationship of its historic components.

    a. The location, scale and form of historic spaces would be identified. Known spaces include:

        - the ten to twenty acre site of Elkhorn Tavern (fields, pastures, gardens and orchard) that soldiers recalled;
        - those associated with the Clemens' farm;
        - the tanyard and the hospital site within in Cross Timber Hollow.

    b. The locations, scale and form of historic buildings, structures and features would be identified.

        - At Elkhorn Tavern, these would include barns, outbuildings, fences, and wells.
        - At Clemens' House site, these would include a farmhouse, barn(s), outbuildings and wells.

    c. At the hospital site, archeological investigations would be undertaken to identify remnant features associated with the battle or any physical remains of structures or features present at the time of the battle.

    d. Investigations would build on previous studies. Actions could include some limited ground disturbance during investigations.

2. Additional research would be undertaken to further understand the individual families and residents that lived in the Elkhorn Tavern area.

    a. Research into the personal accounts of soldiers would be undertaken to better understand the physical qualities of the setting at the time of the battle.

    b. This research would assist with the interpretation of the historic setting and with the identification of individual features.

Elkhorn Tavern/Williams Hollow

Spatial Organization

The spatial qualities of the Elkhorn Tavern / Williams Hollow landscape character area would be reestablished to depict the historic spaces and features that existed at the time of the battle, and their relationships to one another.

1. The size, scale and spatial arrangement of the Elkhorn Tavern farmstead would be fully established to convey the area's historic character.

    a. Elkhorn Tavern, cistern, cave entrance and the two commemorative monuments would be preserved in place.

    b. Based on information from the archeological investigations, the outlines and extent of the farm associated with Elkhorn Tavern and its historic spaces would be identified using vegetation, fencing or other simple means. These would include:

        - Apple orchard, wood lot, fields, pastures and garden(s) associated with Elkhorn Tavern;

        - Fields, pastures and garden(s) associated with Clemens' Farm.

2. The two commemorative monuments would remain within the historic Elkhorn Tavern setting.

3. The arrangement of buildings and structures would be fully reestablished to provide a sense of the setting the soldiers encountered during the battle.

    a. Based on information from the archeological investigations, the outlines of known buildings and structures would be identified by markings or other simple means. These would include:

        - Barn(s), outbuildings and structures associated with Elkhorn Tavern;

        - House and barn(s) associated with Clemens' Farm.

4. The spatial relationships between Elkhorn Tavern and areas associated with the battle would be reestablished. These include the following.

    a. Elkhorn Tavern with Welfley's Knoll;

    b. The Elkhorn Mountain outcropping to the battlefield and to the Elkhorn Tavern area;

    c. Ruddick's Field with other fields;

    d. Elkhorn Tavern with Cross Timber Hollow, between the higher, level ground of the Elkhorn Tavern area to the sloped terrain of Cross Timber Hollow;

    e. Elkhorn Tavern with the two commemorative monuments.

Elkhorn Tavern/Williams Hollow

Views and Vistas

The views and vistas within the Elkhorn Tavern / Williams Hollow landscape character area reveal the importance of the setting during the Battle of Pea Ridge.

Views that were integral to the battle would be restored. Others that convey the setting and feeling of the physical landscape present during the period of significance would be reestablished.

1. The views and vistas from Elkhorn Tavern towards Welfley's Knoll (the battlefield), Elkhorn Mountain, Cross Timber Hollow, and towards Telegraph Road would be reestablished.

2. The two commemorative monuments would remain within the reestablished viewshed between Elkhorn Tavern and the battlefield to the west.

3. The view from Huntsville Road towards Elkhorn Tavern would be reestablished.

Elkhorn Tavern/Williams Hollow

Topography and Landform

The topography and landform of Elkhorn Mountain / Williams Hollow would be preserved.

Elkhorn Mountain and Cross Timber and Williams hollows would remain, as they were topographic forms that influenced the Battle of Pea Ridge.

1. Native topography and landforms would be preserved. Measures would be undertaken to convey the significance of these features to the battle.

    a. The topography and landform of Elkhorn Mountain including the rock outcropping, Welfley's Knoll, Cross Timber Hollow, and Williams Hollow would be preserved as they contributed to the battle.

    b. The rolling topography of the historic agricultural fields would be preserved and measures undertaken to convey those areas that had a role in the battle.

2. Areas where contemporary roadways or other non-contributing features modified the native topography would be repaired to the historic appearance.

    a. Minor alterations to the topography to build new portions of the Tour Road or to modify the existing road would be allowed.

    b. After the portion of the road and parking are removed, the area would be regraded to be part of the agricultural setting of Elkhorn Tavern.

Elkhorn Tavern/Williams Hollow

Circulation

Elkhorn Tavern was historically the crossroads of the Pea Ridge community. Set at the intersection of Telegraph Road and Huntsville Road, the farm became a pivotal site during the battle.

The circulation system of this area would be preserved and repaired to reflect the patterns and features that existed at the time of the battle. Non-historic roads would be removed, except for those needed to make Elkhorn Tavern accessible to visitors from the Tour Road.

1. Huntsville Road would be preserved and repaired as a contributing feature with pedestrian and equestrian use.

2. Telegraph Road would be preserved and repaired as a contributing feature to reflect its 1862 appearance.

    a. The road alignment and width would be repaired to match the historic road condition. The road would be a hardened dirt surface.

    b. When the Tour Road is rerouted, sections previously covered by the Tour Road would be repaired by regrading and resurfacing. Areas where new road surfacing is required would be overlain on the historic road with a barrier placed between historic and new materials.

    c. Telegraph Road would be stabilized and repaired north of Elkhorn Tavern where the road has been damaged. Missing sections would be filled, erosion would be repaired, and the road graded to eliminate surface runoff.

    d. Pedestrian use would be allowed on Telegraph Road.

3. The Tour Road and parking area would be rerouted away from the core historic setting of Elkhorn Tavern. All existing paving and trails would be removed including the flagstone walkway, stone wall and seating.

    a. The new Tour Road segment would descend Elkhorn Mountain to the west of the road's current location. A small parking area would be located at the base of the mountain.

        - The new parking area for Elkhorn Tavern would be carefully sited so as to not visually or physically impact the historic battlefield.

        - The parking and restroom would be sited so as to not be visible from Elkhorn Tavern, Ford Road, or Welfleys' Knoll. Care would be given so that new facilities are not visible from the visitor center or the east overlook.

        - New facilities would be sited along the former road alignment of Old Highway 72 on areas previously disturbed.

b. Pedestrian access to Elkhorn Tavern would be from the new parking area. Where possible, the new pedestrian path would follow the alignments of already disturbed areas or along historic roads.

    - A universally accessible route may be provided to Elkhorn Tavern. The surfacing could be hardened dirt, decomposed granite or concrete paving as long as the surface is acceptable for universal accessibility.

c. A pedestrian trail would access the spring box and cave entrance.

d. A pedestrian trail would access the two commemorative monuments and connect the space to Elkhorn Tavern.

Elkhorn Tavern/Williams Hollow

Buildings and Structures

Elkhorn Tavern is the only building within Elkhorn Tavern / Williams Hollow. The building is a late 19th century reconstruction. Two monuments, added in the 1880s, to commemorate the soldiers of the two battles are the only structures. The existing building and structures would remain, and would be preserved and repaired.

Other buildings and structures were present at the time of the battle, but no longer have above-grade features. The location, number, form and scale of these buildings and structures would be identified to assist in conveying the historic extents of the physical setting that was present at the time of the battle.

1. Elkhorn Tavern would be preserved and repaired.

    a. Even though the building is a reconstruction, rebuilt to its 1880s appearance using original materials including stone from the original foundation, it conveys an authentic sense of the scale and use of the historic site at the time of the battle.

    b. A historic structures report would be undertaken to identify historic versus non-historic fabric, to evaluate the condition of the building, and to provide recommendations for repair and use.

    c. Potential uses could include a smaller, second visitor facility with interpretive and educational programs for the building and landscape.

2. The two commemorative monuments: The Monument to the Brave Confederate Dead and The Monument to the Reunited Soldiery would be preserved.

    a. The two monuments contribute to the historic character as they were built and installed in the 1880s by veteran soldiers as commemorative elements.

    b. The Monument to the Reunited Soldiery would be repaired. The original monument was set on a base of native bedrock or stone. The base would be reestablished as a native stone element to resemble the original aesthetic and character of the base.

3. Additional investigations would be undertaken to more conclusively identify the location and size of buildings and structures associated with Elkhorn Tavern / Williams Hollow at the time of the battle.

    a. Research into associations to specific families or residents would be undertaken.

4. Known buildings and structures would be marked to depict the historic scale of the Elkhorn Tavern setting.

    a. Features identified as remnants or original historic fabric would be preserved. This would include extant features.

    b. Based on information from the archeological investigations, the outlines and forms of buildings and structures would be identified using markings or 'ghosting' of three-dimensional components.

        - Soldier accounts recall a blacksmith shop, barn, and stable that accompanied the Elkhorn Tavern.

    c. Techniques could include outlining a known foundation with a simple wood frame or a stone base.

        - Markings could include filling the form with a low-growing grass or with gravel surfacing.

        - 'Ghosting' of three-dimensional features would be based on adequate information. These could be a base at a first floor level or a three-dimensional element at a corner. Ghosting would be used to more fully depict the historic mass and scale of a feature.

    d. The existing marking of the Clemens' House site would be repaired.

Elkhorn Tavern/Williams Hollow

Small Scale Features

Historically, the area would have included fences that lined agricultural fields and pastures, and defined property ownership. Other small scale features would have included cisterns and wells.

The extant small scale features would be preserved. Further investigations would be undertaken to identify remnant features that were present at the time of the battle.

1. Known historic small scale features would be preserved.

    - Spring Box
    - Cave entrance
    - Elkhorn Tavern well
    - Clemens' well(s)
    - Miscellaneous wells and cisterns

2. Measures to seal and secure features such as wells or cisterns would be undertaken where necessary. This could include filling voids with clean, artifact-free sand.

3. The use of new non-historic worm fences to delineate historic fence alignments would continue. Fences that resemble the historic worm fence would be used along historic alignments.

    a. Fences would be installed in historic locations where alignments are confirmed by research and investigations.

    b. Should research reveal new information about historic fence types, the fencing would be modified to be historically accurate. Maintain existing wood fences.

4. A different fencing type would be used for protection of resources or for other functional needs.

    a. A simple fence of slightly different construction or dimensional quality would be used.

    b. The utilitarian fence could be cable or wire with simple wood posts.

Elkhorn Tavern/Williams Hollow

Vegetation

The historic character of the 1862 vegetation would be reestablished.

1. The vegetation patterns that existed at the time of the battle would be reestablished. These included crops in fields and pastures, garden(s), orchards and the surrounding hardwood forest.

    a. Based on further research and investigations, the full extent of field patterns surrounded by forest would be delineated.

    b. Plantings would be installed according to the historic use of the individual space.

        - Low growing vegetation or mown grasses would delineate non-agricultural spaces or spaces near buildings (Elkhorn Tavern, Clemens' House, etc.).

        - Taller grasses or crops would delineate fields and pastures. Large trees would be cleared from fields and pastures.

        - Low-growing plantings, mown grasses or vegetable crops would delineate garden spaces.

2. Historic trees and plantings (i.e., those present during the period of significance of 1862 to 1865) would be identified and preserved. Mature trees would remain until they are determined to be non-historic.

    a. According to GLO notes and field investigations, some trees within this area may date from the Civil War. These trees would be preserved, in line with methodologies identified in the VMP. Additional investigations would be undertaken to identify all historic trees.

    b. Any ornamental vegetation, such as flowers or shrubs planted at the base of buildings, that is determined to be historic would be preserved.

    c. Plantings that reflect the historic character would remain, and would be planted to convey an authentic setting.

        - The existing apple orchard would remain. The full extent of the plantings would be researched. With adequate documentation, the orchard would be reestablished to its full extents.

3. Trees and vegetation would be thinned along Telegraph Road as it descends Cross Timber Hollow, as identified in the VMP.

    a. Removal and thinning would be undertaken to reveal views to Elkhorn Mountain and along Telegraph and Huntsville roads.

4. The management of the surrounding forest would be guided by the VMP. In addition, the following would be implemented.

    a. The forest within Williams Hollow would be restored to reflect the historic species and composition of species similar to that which occurred historically. This forested woodland was a critical part of the battle.

    b. The forested woodlands lining Telegraph Road from Elkhorn Tavern to the north would be restored to reflect the historic species and composition of species similar to that which occurred historically. Trees immediately lining the roadway would be thinned.

Implementation Guidance

This section provides guidance on how to complete the recommendations of the CLR/EA. From the treatment recommendations, projects have been identified that address deficiencies, maintenance needs, or new development. The projects are listed in order of priority, and each project has been broken into individual tasks. A brief of each project is provided including information on the project scope, planning, and data collection requirements and identification of planning, design, and construction needs as part of the project. All implementation projects should be coordinated with the treatments included in this CLR/EA.

The projects are linked to the FMSS Maintained Landscapes data for Pea Ridge NMP, and are the same as FMSS Work Orders in the FMSS database. The FMSS is the primary tool used by the NPS to implement its asset management process, and makes the CLR recommendations more accessible to park facilities staff. The FMSS is a computerized asset management process that accommodates cultural landscape data in the identification of assets and in work planning.

The information is presented so that it can be entered into FMSS to create work orders that are ready to compete for funding. The project components correlate to FMSS Work Orders, and individual tasks correlate to "FMSS Tasks (components of Work Orders)." The treatment projects, tasks and priorities are presented in this chapter; the FMSS tables are provided in Appendix H.

Task 1. Repair Elkhorn Tavern cultural landscape

The current route of the tour road and parking area detract from the historic setting. Repairing the Elkhorn Tavern cultural landscape would include rehabilitation of the setting of the Elkhorn Tavern. This would have been a working farm prior to the battle, with other structures accompanying the tavern within a farm-like setting. It is recommended to reroute the tour road, in addition to conducting further research to reveal the historic boundaries and features of the farm. Depending upon the findings of archeological research, non-extant buildings would be marked and farm spaces would be revealed.

1. Reroute the Tour Road and move the parking area from the historic core of Elkhorn Tavern.

2. Repair monument bases, lettering, finishes and walkway to the two monuments.

3. Conduct archeological investigations to determine locations of non-extant features.

4. Mark the non-extant outbuildings and features associated with the Elkhorn Tavern, based on archeological investigations.

5. Repair and maintain the east overlook shelter for as long as it remains in place.

6. Establish the historic boundaries of the original Elkhorn Tavern farm (between 10 to 20 acres) by removal of vegetation and non-contributing features.

7. Install worm fences to define the full extent of the historic boundaries.

8. Repair Clemens' House foundation and mark the barn foundation.

9. Restore the view to the rock outcropping on the south bluff of Elkhorn Mountain.

10. Plant trees in the apple orchard in historic space, pattern, configuration. The specific number of trees should be confirmed by archeological investigations.

11. Plant vegetation in fields to reveal the full extent of historic fields. Refer to the vegetation management plan. Areas will also be needed for interpretation and access.

Recurring maintenance for the Elkhorn Tavern cultural landscape is also needed, including regular mowing for grasses and annual pruning of the orchard, annual vegetation thinning including vegetation removal, clearing and thinning for keeping the fields clear. Recurring maintenance is also needed for maintaining the materials of the two foundations at Clemens Farm.

Task 2. Repair Federal Trenches

The Federal Trenches are difficult to access and it is difficult to discern how the landscape appeared in 1862. Repairing the Federal Trenches would protect the trench while improving visitor access and interpretation. Revealing the structure of the trench and the scene that the Union soldiers would have witnessed would be key. Further research into the trench's construction and the extent of other trenches on the adjacent bluff would assist in interpreting the site for visitors.

1. Repair the trench according to best practices.

2. Repair the existing trail with steps, erosion control and revegetation.

3. Thin and prune vegetation on the hillside in front of trench to restore historic views.

4. Research Civil War construction of fortifications, and techniques used at Federal Trenches, in order to maintain and interpret the resource.

Recurring maintenance for the Federal Trenches cultural landscape is also needed, including annual vegetation thinning at the trench and the hillside. The hillside also requires periodic tree removal, pruning, and thinning to maintain views. The pedestrian trail requires periodic trail maintenance/upkeep.

Task 3. Screen Visitor Center from battlefield landscapes

Currently, the visitor center is a dominate feature within the landscape, and it was constructed on one of the battlefields. To lessen the impact that this contemporary, non-contributing building has on the landscape, the center should be screened to make it less apparent when visitors are within the park.

1. Plant trees and a native understory to screen the north elevation of the visitor center.

2. Regular maintenance would include periodic pruning and weeding to suppress invasive plant species.

Task 4. Reestablish patterns of the historic agricultural spaces

One of the things that is not currently represented at the park is the fact that this was once a working, agricultural landscape prior to the battle. By reestablishing the patterns of agricultural spaces, the visitor will be able to better understand the historic context in which

the battle was fought, how that disrupted the local people, and the obstacles that the soldiers faced.

1. Reestablish plant species that depict the historic form and aesthetic of the agricultural landscape.

Regular maintenance is needed including annual vegetation removal as necessary.

Task 5. Restore views to and from battlefields

Some of the views across and between battlefields have become diminished over time. The agricultural fields were important fighting grounds and the views across them were key to the way the battle unfolded. The views to distant landmarks were important while the battle was underway. By restoring views to and from battlefields, open views across and towards prominent mountains and hills would be repaired and would better reflect what the soldiers would have seen.

1. Maintain historically open areas free of obstructions and large vegetation.

2. Remove vegetation to restore view to Leetown Battlefield from Foster's Field.

3. Remove vegetation to restore views to and from Welfley's Knoll.

4. Maintain views from the Tour Road and tour stops to the battlefield.

Recurring maintenance for views to and from the battlefields includes regular mowing of fields and annual vegetation removal and clearing to maintain views.

Task 6. Repair Telegraph Road

Telegraph Road is in varying condition throughout its length. A portion of the route is underneath the tour road, and the portion north of Elkhorn Tavern is eroded and in poor condition. The primary circulation route historically, Telegraph Road was heavily used during the battle of Pea Ridge. Today portions of this road are in disrepair and it is not easy for visitors to understand its importance. Repairing Telegraph road to reflect its historic condition will allow for the opportunity to experience the roadway and walk in the footsteps of those who traveled down its path.

1. Reroute the Tour Road off the historic alignment of Telegraph Road (near Elkhorn Tavern).

2. Repair the historic road surface of Telegraph Road and the vegetation from Elkhorn Tavern to north boundary for pedestrian use.

Recurring maintenance for Telegraph Road includes annual vegetation removal and grading of the road surface as necessary.

Task 7. Repair the historic road circulation system

The historic road system is difficult to understand currently, as many of the circulation routes have changed. Repairing the historic road circulation system would protect the historic resources and would more accurately reflect the historic landscape. The road system played an important part during the two-day battle, as the soldiers would have used these routes to transfer equipment when moving between battles. Repairing the historic road system would allow visitors to gain a sense of what the landscape was like for the soldiers and how they moved around the area.

1. Repair Ford Road along its original alignment, to its original width and surfacing.

2. Repair Huntsville Road along its original alignment, to its original width and surfacing.

3. Repair Foster's Lane, Leetown Road and Lee Creek Road to their original alignments, surfacing and widths.

4. Conduct investigations to determine the historic alignment of Pratt's Road and South Road through archeological investigations.

5. Repair Winton Springs Road for contemporary use and service. The future use of Winton Springs Road is to be determined but repair to remain functional in the interim.

Recurring maintenance for the historic road and circulation system includes annual vegetation removal in the roadbeds and grading of the road surfaces as necessary.

Task 8. Complete a trail plan

Currently a horse trail circles the park, and mown paths connect pedestrians into the battlefields. By completing a trail plan, the park will be able to protect cultural resources and plan for future visitors. As the regional population increases, a plan is needed that can address how to accommodate the increasing number of visitors and how to minimize effects on the landscape. It should determine if existing trails should be rerouted and if any new routes should be added, and where these should occur. It will need to address maintenance issues as well.

1. Create a trail plan that determines which historic and modern, roads would be used as trails.

2. Evaluate whether the horse trail should be moved.

Task 9. Mark foundations of non-extant contributing buildings and structures

At the time of the battle, there were numerous buildings and structures throughout the area. Over time these have been lost, which has resulted in a landscape that seems less developed and even more rural than it was during the battle. The intent behind marking the foundations of non-extant buildings and structures is to reveal to the visitor that this was a working landscape, with farmhouses, barns and outbuildings, and this is what the soldiers would have seen as they fought their way across the fields.

1. Conduct archeological investigations to determine locations of non-extant features.

2. Mark the foundation of the Sturdy Cabin, G.W. Ford House and Barn, Amos J Patterson dwelling, Wiley Foster residence, and structures associated with J Ruddick.

Task 10. Repair the setting of the Ford Farm

Prior to the Battle of Pea Ridge, the Ford Farm was a thriving agricultural landscape. Repairing the setting of this farm would help to repair the landscape setting that would have been memorable to soldiers of both sides who fought in this area. As part of a working farm, the Ford Farm would have been one of the scenes that the soldiers witnessed, and its house, barns and outbuildings were used during battle. Currently there are no buildings or structures remaining and the extents of the farm are not fully represented. Repairing the

farm setting would add to the depth of understanding of the battle for park visitors.

1. Conduct archeological investigations to determine locations of non-extant features at the Ford Farm.

2. Mark the G.W. Ford House and Barn, and outbuildings.

3. Establish the historic boundaries and spaces of fields, orchards and forests.

4. Install worm fences to define the full extent of historic boundaries.

5. Plant vegetation in fields to reflect the full extent of the historic fields.

6. Plant trees in the orchard in historic space, pattern, configuration as confirmed by archeological investigations.

Regular maintenance includes annual vegetation removal, grading and mowing of the fields, orchards, and forests.

Task 11. Stabilize known foundations of extant contributing buildings and structure remnants

Throughout the park several foundations exist from the period of significance, indicating the presence of buildings or structures. Stabilizing these extant contributing buildings and structure remnants would allow them to continue to mark the presence of dwellings and reflect the historic setting. As part of the greater landscape, maintaining these structure remnants will add richness to the visitor experience. It is unknown if some of these structures date from the time of battle, so research is necessary to determine dates of construction; however foundations should be maintained until further research deems them non-contributing.

1. Stabilize foundation remnants at the Winston Springs house site.

2. Stabilize log cabin remnants.

3. Conduct further investigations to confirm dates of construction.

Task 12. Repair historic cemeteries

The historic cemeteries are currently in disrepair, with overgrown vegetation and some grave stones that need resetting. Repairing the historic cemeteries would allow them to become are a noticeable and valuable feature within the landscape. It is uncertain if either cemetery dates from the period of significance, and research needs to be undertaken to determine their associations with the battle. However until such a determination has been made, they should be maintained. Opportunities also exist for the cemeteries to become part of the interpretive experience in the future.

1. Conduct archeological investigations to determine the extent of cemeteries and historical research to identify associations with the battle or families.

2. Repair Leetown Cemetery

3. Repair Ford Cemetery

Regular maintenance is needed for the cemeteries including regular mowing, weed control, fence and grave stone repair.

Task 13. Manage Leetown Hamlet as an archeological landscape

Used as a military hospital site at the time of battle, Leetown Hamlet currently has no standing structures or other features. Managing the hamlet as an archeological landscape would include interpreting the townsite as part of an on-going investigation. The current extents of the townsite are unknown, and further archeological work would assist in determining the size and scale of the former hamlet. Once this is determined, the full extents of Leetown Hamlet can be revealed so visitors gain an appreciation for the conditions the locals and the soldiers endured as part of the battle.

1. Plant grasses to spatially depict the full extent of Leetown Hamlet.

2. Install fences to depict historic boundaries.

3. Conduct archeological investigations to determine locations of non-extant features.

4. Mark non-extant buildings and structures based on evidence from archeological investigations.

Regular maintenance is needed for Leetown Hamlet including annual vegetation removal to maintain the extents of the hamlet, grading of the roadway and regular mowing.

Chapter 7. Consultation and Coordination

National Historic Preservation Act, Section 106 Consultation

Agencies that have direct or indirect jurisdiction over historic properties are required by section 106 of the NHPA, to take into account the effect of any undertaking on properties listed in, or eligible for listing in, NRHP. The NPS has documented compliance with the requirements of both NEPA and Section 106 of the NHPA pursuant to 36 CFR Part 800.8(c) within this CLR/EA.

Agency scoping for the CLR/EA began with a scoping letter sent on June 3, 2013, to the Arkansas SHPO to solicit input on issues of concern. The SHPO responded on July 2, 2013, acknowledging initiation of consultation and supporting the decision of NPS to return the Pea Ridge Battlefield to its appearance during the period of significance. The SHPO encouraged NPS to consider archeological resources during CLR/EA alternatives development. The SHPO will also receive a copy of the draft CLR/EA for review and comment, and the park will coordinate with the SHPO in the development of mitigation measures for historic and archeological resources, if necessary.

Consultation with American Indian Tribes

The park initiated consultation with American Indian tribes and organizations on June 3, 2013, informing them of the proposed project and soliciting comments. Information from the tribes also was requested to determine if any ethnographic resources are in the project area and if the tribes wanted to be involved in the environmental compliance process. American Indian tribes traditionally associated with the lands of the park will also have an opportunity to review and comment on this CLR/EA. The NPS will continue to consult with the tribes throughout implementation.

The following federally recognized American Indian tribes and tribal governments that are traditionally associated with the area now containing the park received a copy of the scoping notice and will receive a copy of the draft CLR/EA.

- Absentee Shawnee Tribe
- Cherokee Nation of Oklahoma
- Choctaw Nation of Oklahoma
- The Osage Nation
- Shawnee Tribe of Oklahoma
- Quapaw Tribe of Oklahoma
- United Keetoowah Band of Cherokee Indians
- The Chickasaw Nation
- Muscogee (Creek) Nation of Oklahoma

U.S. Fish and Wildlife Service, Section 7 Consultation

In accordance with Section 7 of the Endangered Species Act, the park initiated consultation with the USFWS on June 3, 2013 with a letter that included the park's determination that the proposed CLR/EA would have no effect on listed species.

The park will also forward this CLR/EA to the USFWS for review and comment. The USFWS, in coordination with the NPS, will determine the level of consultation needed for potential effects on threatened and endangered species for the proposed project. The USFWS will review this CLR/EA to determine if they concur with the park's findings of effect, and whether additional conservation measures are needed to protect listed species.

Environmental Assessment Review and List of Recipients

The CLR/EA will be released for a 30-day public comment period. To inform the public of the availability of the CLR/EA, the NPS will publish and distribute a letter to the park's general mailing list; area tribes; and federal, state, and local agencies. The park will provide a press release to the area media. In addition, the park will provide hard copies of the CLR/EA to area libraries. Interested individuals may obtain a copy of the CLR/EA upon request. The CLR/EA will also be available for review at the park's visitor center and on the Internet at http://parkplanning.nps.gov/peri. Comments can be submitted through this website or provided in writing to: Superintendent, Attn: Pea Ridge National Military Park, Vegetation Management Plan and EA, 15930 Hwy 62, Garfield, AR 72732.

Compliance with Federal and State Regulations

The NPS would comply with all applicable federal and state regulations when implementing the preferred alternative. Permitting and regulatory requirements for the preferred alternative are listed in Table 7-1.

TABLE 7-1. ENVIRONMENTAL COMPLIANCE REQUIREMENTS

Agency	Statute, Regulation, or Order	Purpose	Project Application
Federal			
National Park Service	National Environmental Policy Act	Applies to federal actions that may significantly affect the quality of the environment.	Environmental review of proposed action and decision to prepare a FONSI or EIS.
	National Historic Preservation Act, Section 106	Protection of historic and cultural resources.	The park is consulting with the SHPO to address anticipated effects and mitigation for cultural resources.
	EO 11990, "Protection of Wetlands" and NPS 77-1: Wetland Protection	Requires avoidance of adverse wetland impacts where practicable and mitigation, if necessary.	The preferred alternative would have no effects on wetlands as these areas would be avoided and would not include the discharge of fill material into wetlands.
	EO 11988, "Floodplain Management"	Requires avoidance of adverse floodplain impacts, where practicable, and mitigation, if necessary.	The preferred alternative would have no effect on floodplains.
	NPS 77-2: Floodplain Management	Protection of natural resources and floodplains.	The preferred alternative would have no effect on floodplains.
U.S. Army Corps of Engineers	Clean Water Act – Section 404 Permit to discharge dredge and fill material	Authorizes placement of fill or dredge material in waters of the U.S. including wetlands.	The preferred alternative would not discharge fill material into wetlands.
U.S. Fish and Wildlife Service	Endangered Species Act	Protection of federally listed threatened or endangered species.	The park is consulting with the USFWS as part of the NEPA process.

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Authorities for Base Map: for topographic features aerial photographs 1"=1000'. For cultural features "Official Records Atlas", Plate X, figures 2,3,7,8 and 8, and Plate LXXIX, figure 6. Department of the Interior, Geological Survey, edition of 1901. Land ownership Plats of 1881 and 1903. Figure 3, Plate X, was used as the basic source for cultural features in the ELKHORN TAVERN and PRATT'S STORE area. Figures 5 and 8, Plate X were used as basic sources in the LEETOWN area, as Captain Louis Hoffman and Colonel P.J. Osterhaus were participants in the fighting at Leetown, and had an intimate knowlege of the action there.

~LEGEND~

	EXISTING	PROPOSED
N.P.S. BOUNDARY		
ROADS		
BUILDINGS		
STREAMS		
WOODS		
TRAILS		
WORM FENCES		
CURTIS' HDQ.		
TRENCHES		

"DOCUMENTED MIGRATION TO SURROUNDING AREA" SHOWING FEATURES AND VEGETATIVE COVER AS NOTED ON THE PEA RIDGE HISTORICAL BASE MAP," BY E. BEARSS, FEB 62

BASIC DATA: PP-NMP 7002, 7001
R. APPLEMAN, E. BEARSS DEPT DEC 1, 1956

SCALE 1"=1000'

HISTORIAN: EDWIN C. BEARSS
DATE: JANUARY, 1957
REVISED: MARCH, 1962

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
DESIGN & CONSTRUCTION
PREPARED BY EASTERN OFFICE

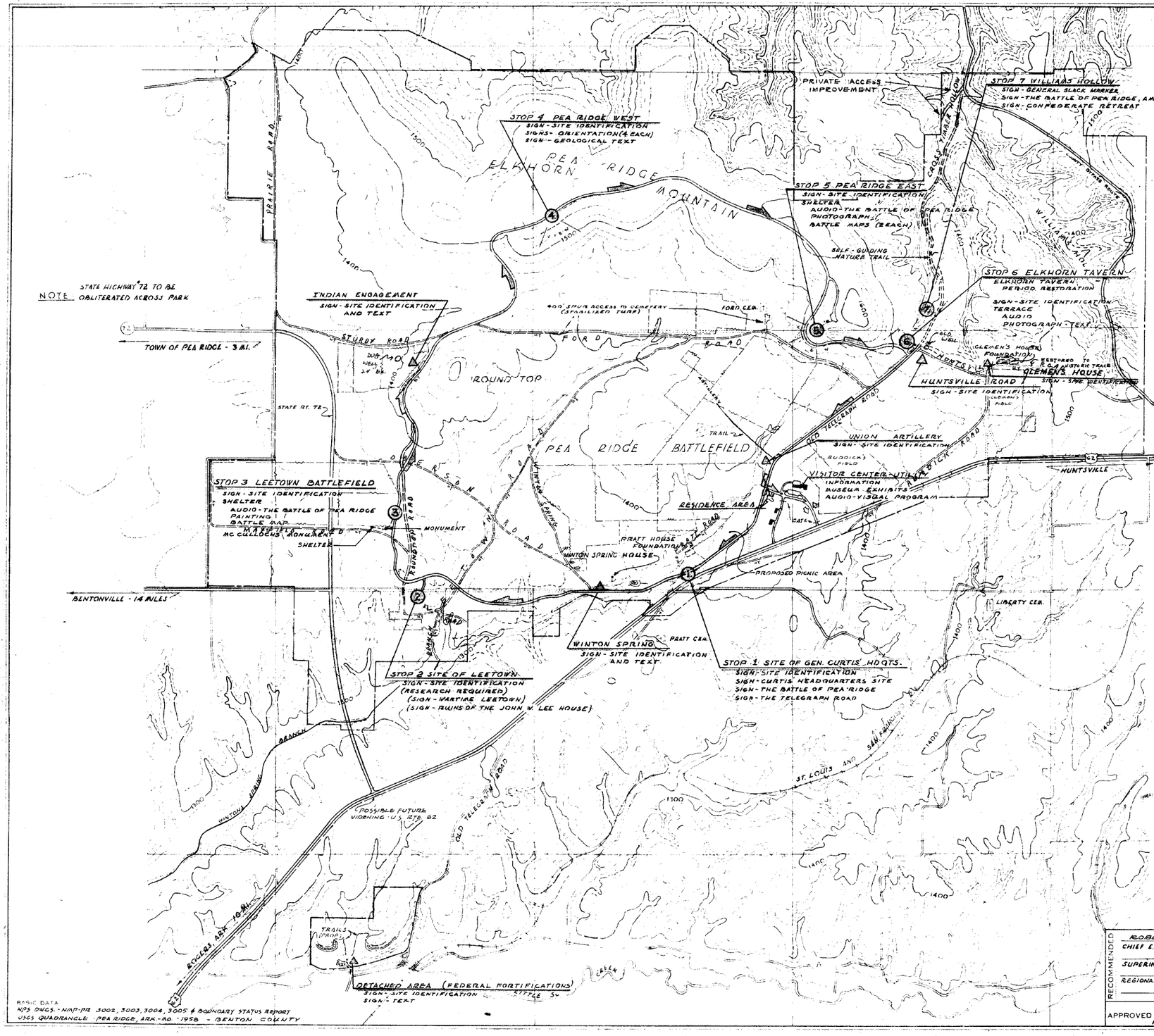
HISTORICAL BASE MAP
TITLE OF DRAWING
PART OF THE MASTER PLAN
LOCATION WITHIN AREA
PEARIDGE NATIONAL MILITARY PARK
NAME OF AREA
ARKANSAS

PREPARED
DESIGNED LCB RW
DRAWN HH
CHECKED

REVISED DATE	INITIAL
4-18-62	JCK
4-19-62	BG
5-5-62	JCK

REGION SOUTHEAST
PCP
SHEET OF
DRAWING NO PR-NMP 3003-C
DATE 2/13/57

G-13



NOTE STATE HIGHWAY 72 TO BE OBLITERATED ACROSS PARK

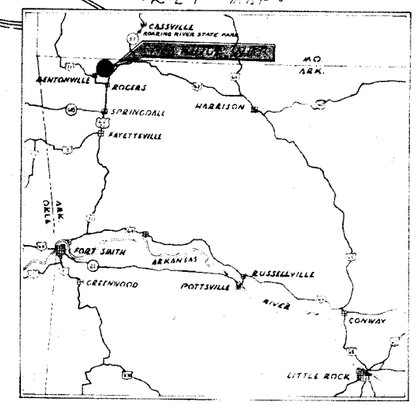
BASIC DATA
NPS DWGS. - NMP-PR 3002, 3003, 3004, 3005 & BOUNDARY STATUS REPORT
USGS QUADRANGLE: PEA RIDGE, ARK.-MO. - 1958 - BENTON COUNTY

LEGEND

	EXISTING	PROPOSED	OBLITERATE
N.P.S. BOUNDARY			
STREAMS			
BUILDINGS			
ROADS			
NPS			
HISTORIC			
HISTORIC TRACE			
OTHER			
PARKING AREA			
INTERPRETIVE TOUR ROUTE			
PRIMARY STOPS			
INTERMEDIATE STOPS			
TRAILS			
HISTORIC HOUSE FOUNDATION			

NOTE:
THIS PLAN REFLECTS THE PLANNING AND RECOMMENDATIONS OUTLINED IN THE INTERPRETIVE PROSPECTUS FOR PEA RIDGE NATIONAL MILITARY PARK APPROVED APRIL 6, 1961, AND THE SIGN AND WAYSIDE EXHIBIT PLAN FOR THE AREA. REFER TO THESE DOCUMENTS FOR THE CONTENT OF THE AUDIO UNITS, PAINTINGS, PHOTOGRAPHS, SIGNS AND MARKERS.

KEY MAP



ORIENTATION

CONTOUR INTERVAL 20 FEET
SCALE 1" = 1000'

RECOMMENDED		
ROBERT G. HALL, CHIEF E.D.D.C.	11-27-64	
SUPERINTENDENT		
REGIONAL DIRECTOR		
APPROVED, ASS'T. DIRECTOR, OPERATIONS		

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
DESIGN & CONSTRUCTION
EASTERN

PLAN OF INTERPRETATION
PART OF THE MASTER PLAN
PEA RIDGE NATIONAL MILITARY PARK - ARKANSAS

PREPARED	
STEWART	
HANSON	
REVISED	
11-28-64	T.C.O.
12-28-64	H.S.
REGION	SOUTHEAST
SHEET	1 OF 1
DRAWING NO.	NMP-PR 3021 A
DATE	7-26-63

G-9

Historical Land Cover/Use Classification of Pea Ridge National Military Park



Legend

- Buildings(Bearss Map)
- Roads (1940's imagery)
- Roads (Bearss Map)
- Worm Fence (Bearss Map)
- Agriculture/Pasture
- Apple Orchard
- Corn Field
- Forest
- Peach Orchard
- Prairie
- Open Forest and Herbaceous Undergrowth

N W E S

Scale 1: 8,000

0 1,000 2,000 3,000 4,000 Feet

GLO Witness Trees in the Study Area (1836-1837)

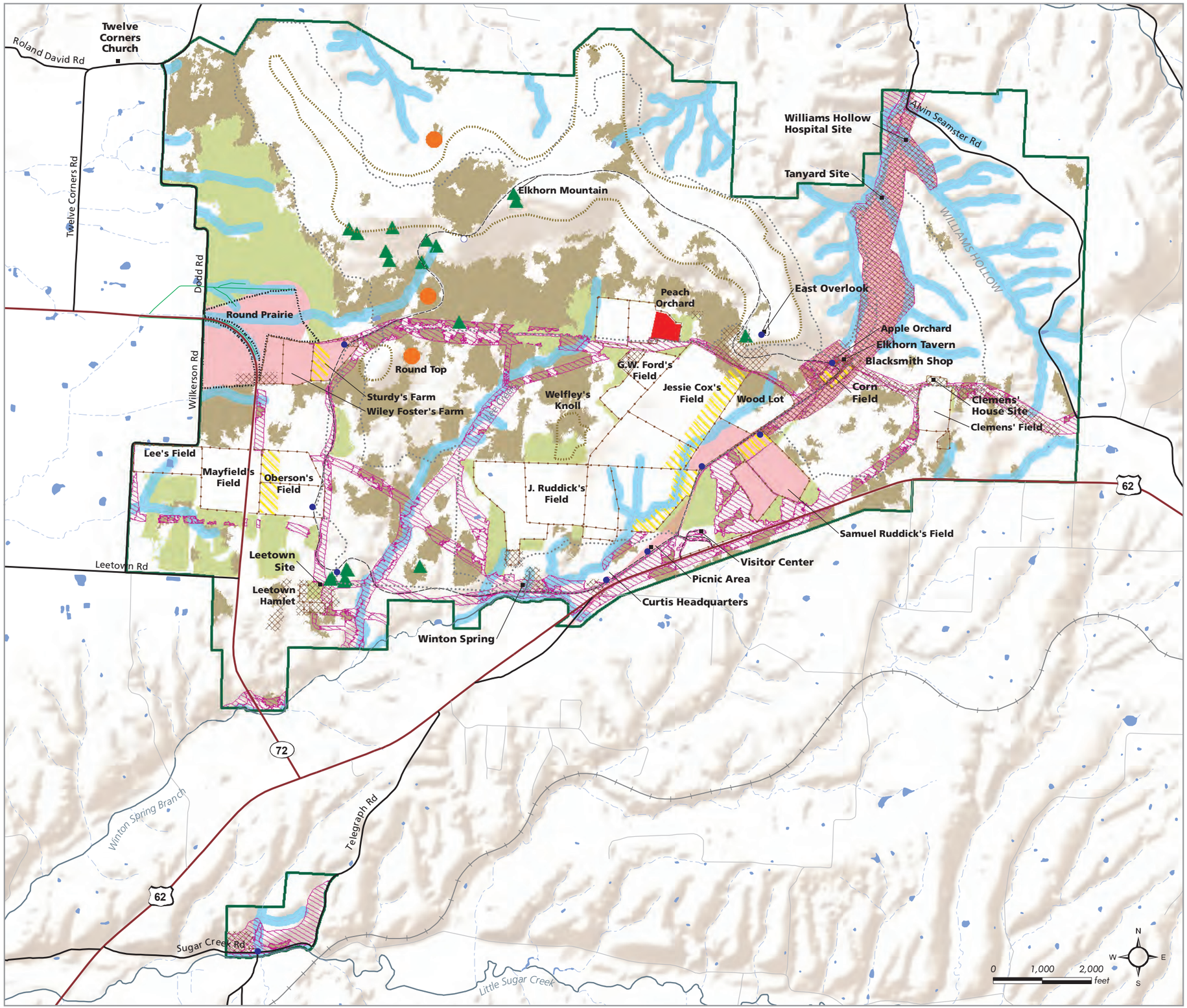
Species	Count	Minimum Diameter	Maximum Diameter	Average Diameter	Percentage
Post Oak	175	4.0	30.0	13.8	77.23
Black Oak	120	4.0	30.0	15.4	25.53
Black Jack	83	4.0	18.0	11.1	17.66
White Oak	58	5.0	42.0	16.2	12.34
Hickory	10	4.0	16.0	9.7	2.13
Red Oak	6	15.0	20.0	17.5	1.28
Chinquapin	3	6.0	30.0	15.3	0.64
Sycamore	3	24.0	48.0	34.0	0.64
Cherry	2	12.0	12.0	12.0	0.43
Elm	2	6.0	7.0	6.5	0.43
Hackberry	2	12.0	12.0	12.0	0.43
Sugar Tree	2	14.0	15.0	14.5	0.43
Dogwood	1	4.0	4.0	4.0	0.21
Pin Oak	1	20.0	20.0	20.0	0.21
Walnut	1	30.0	30.0	30.0	0.21
Coffee Tree	1	16.0	16.0	16.0	0.21

The historical land cover/use map shown above of Pea Ridge National Military Park was created based on information obtained from the 1963 Bearss map, 1940's aerial photography, 1960's aerial photography, 2004 aerial imagery, the original GLO survey plat maps, field evidence, elevation data, slope data, historical accounts of the battle and discussions with Dr. William Shea. The historical land cover/use map is shown over the 1940's black and white aerial imagery. The historical land cover/use map was created using the best evidence available at this time.

Pea Ridge National Military Park area map was produced by the Spatial Analysis Laboratory (SAL) at the School of Forest Resources, University of Arkansas at Monticello (UAM).

Director: Robert C. Weih, Jr.
Projection: UTM NAD83, Zone 15N, Meters
Date: 11/22/06

Elements Common to All Action Alternatives



L E G E N D

- Pea Ridge NMP boundary
- Tour stop
- Tour stop to be removed
- Park trail
- Tour Road
- Historic fence
- Reestablish Round Prairie
- Reestablish historic cedar glades
- Preserve historic trees
- Agricultural areas
- Cultural Landscape Report buffer areas
- Areas to be thinned
- Sensitive resource 100' buffer
- Keetoowah areas of interest
- Areas to reforest
- Red cedar areas to be removed
- Orchard

Pea Ridge National Military Park
Vegetation Management Plan and
Environmental Assessment

Appendix E: Elements Common to All Action Alternatives, VMP 2014

Appendix F.

Pea Ridge National Military Park

U.S Highway 62 Mitigation Guidance

December 20, 2013
revised February 19, 2014

U. S. Highway 62 Mitigation Guidance

The primary access road into Pea Ridge Military Park, U.S. Highway 62, is being realigned to a route along the south edge of the park. This will result in removal of a portion of the tour road and the Elkhorn Tavern parking lot. As part of the scope of work for the Cultural Landscape Report (CLR), the CLR team is required to provide guidance on how the mitigation of Highway 62 realignment should be accommodated within the park's cultural landscape. This document summarizes the guidance from the CLR project team.

Pea Ridge National Military Park (the park) is collaborating with the Arkansas State Highway and Transportation Department (AHTD) on minimization and mitigation measures to Pea Ridge National Military Park due to the construction of the project (relocation of U.S. Highway 62). The agencies are in the process of determining the preferred alternative. Four alternatives are under consideration. The agreements are as follows. A Memorandum of Agreement is currently being developed to outline the responsibilities of each agency for implementation of the mitigation strategies.

- U.S. Highway 62 will be re-built just outside the existing southern boundary of the park;
- Portions of the existing highway within the park boundaries that will not be used by the NPS will have pavement removed and be restored to natural topography;
- A section of the existing highway within the park will be modified as an asphalt paved two-lane park road. A new entrance into Pea Ridge National Military Park from the re-routed U.S. Highway 62 will be built at the southwest end. A trailhead for the horse trail will be built at the north end.
- Two new parking lots will be built. One will be located near the visitor center. The other will be near the Elkhorn Tavern tour stop.
- A new two-lane park road will be built between the existing U.S. Highway 62 and the new parking lot in the vicinity of the Elkhorn Tavern tour stop.
- A section of the tour road between the Elkhorn Tavern tour stop and east overlook will have pavement removed and will be restored to natural topography.
- A section of the historic Telegraph Road near the Elkhorn Tavern tour stop will be restored.
- A new section of a one-lane tour road will be built between the new parking area near the Elkhorn Tavern tour stop and the east overlook tour stop.
- The feasibility of establishing waste sites will be evaluated for suitable excess material to be used for restoration activities within the park.

The following is the CLR project team's review and comments on the four alternatives. The summary includes comments on those elements common to all alternatives, followed by comments on each individual alternative.

Common to All: Elements common to all alternatives include a new parking area at the visitor center, extension of the new park road to the new horse trail parking and trailhead east of the visitor center, a new restroom near Elkhorn Tavern, and a new section of tour road linking the Elkhorn Tavern parking to the visitor center.

Alternative A (Figure 1): This alternative locates the new horse trailhead to a location just north of the visitor center, converts the one-lane road into a two-way road between the visitor center and Elkhorn Tavern, and provides a short new route from the tour road on Elkhorn Mountain, below the east overlook, to the two-way portion of the tour road.

- Horse Trail area: Locate the final alignment so that the new horse trail parking and trailhead is not visible from the visitor center, east overlook and rock outcropping, and the tour road. Locate the new parking area so it is not visible from the new park road, i.e. move it off the alignment of the new road, and integrate it with the topography of its site. Do not add extraneous vegetation for screening. Instead follow the VMP recommendations for this area.
- Tour road: Minimize impacts to the cultural landscape by confining all road modifications to the existing width and alignment of existing roads. Consider additional archeological investigations to identify physical features that would have been present in 1862, i.e., road bed materials.
- New tour road route and parking near Elkhorn Tavern: Consider an alignment for the new tour road route that more closely follows the natural topography of Elkhorn Mountain. Locate the new parking area so as to not impact the historic battlefield, and to not obstruct the sight lines from Elkhorn Tavern (and the two monuments) towards the battlefield. Do not obstruct sight lines from the battlefield to the rock outcropping.

Alternative B (Figure 2): In this alternative, the new horse trail area is in the same area as in Alternative A, the one-way tour road between the visitor center and Elkhorn Tavern is converted to a two-way road, and a longer new route extends down the slope of Elkhorn Mountain below the east overlook to the new parking area near Elkhorn Tavern.

- Horse Trail area: Refer to Alternative A comments.
- Two-lane tour road: Refer to Alternative A comments.
- New tour road route and parking near Elkhorn Tavern: This route more closely follows the terrain of Elkhorn Mountains than Alternative A. Consider an alignment that more closely blends with the natural terrain. Locate the new parking area so as to not impact the historic battlefield, and to not obstruct the sight lines from Elkhorn Tavern (and the two monuments) towards the battlefield. Do not obstruct sight lines from the battlefield to the rock outcropping.

Alternative C (Figure 3): In this alternative, the new horse trail area is located south of Ruddick's field, the park road extends for the full length of the south boundary, the tour road between the visitor center and Elkhorn Tavern is a one-way route, a new road is added from Elkhorn Tavern along historic Huntsville Road to the new park road on the south boundary, and a longer new route extends down the slope of Elkhorn Mountain, below the east overlook, to the new parking area near Elkhorn Tavern.

- Horse Trail area: This area "yielded significant information concerning the Ruddick farm site," including a stone foundation, and information about the Cox fields during the archeological investigations for the highway mitigation project. These features are of importance to the cultural landscape as they may date from the period of significance, and are likely associated with the families and features present during the battle. The area could potentially yield additional information about the battle and features in existence at the time.

- Tour road extension along historic Huntsville Road: Locating a new road over the alignment of a historic route would have a negative impact on the cultural landscape. In general, the CLR will recommend that vehicular routes generally be located off of historic alignments. Huntsville Road is recommended for preservation in the CLR with compatible uses to include pedestrian and maintenance activities.
- New tour road route and parking near Elkhorn Tavern: This route quickly descends Elkhorn Mountain to an alignment that follows the historic Ford Road for a portion. The new parking area is located on the south side of the tour road in a highly visible location. This alternative will negatively impact the cultural landscape and diminish its integrity. Any new features should not impact the historic battlefield, and should not obstruct sight lines from Elkhorn Tavern (and the two monuments) towards the battlefield. Sight lines should not be obstructed from the battlefield to the rock outcropping.

Alternative D (Figure 4): In this alternative, the new horse trail area is in the same area as in Alternative C, the park road extends to this parking area, a new vehicular route extends to the north to connect with the existing tour road, and a new two-way (two-lane) route extends from this point to the new parking at Elkhorn Tavern. The new tour road route along the slope of Elkhorn Mountain, below the east overlook, extends to the new parking area on the south side of the tour near Elkhorn Tavern.

- Horse Trail area: Refer to Alternative A comments.
- Tour road extension along from new horse trailhead to tour road: This route is along the east edge of Ruddick's Field that was likely scrub and thicket during the battle. The alignment would negatively impact the cultural landscape as it is near an area that has yielded evidence of the battle.
- Two-lane tour road: Minimize impacts to the cultural landscape by confining all road modifications to the existing width and alignment. Consider archeological investigations to identify features that would have been present in 1862, i.e., road bed materials.
- New tour road route and parking near Elkhorn Tavern: Refer to Alternative C.

Summary

In summary, alternatives C and D appear to have more impact on the cultural landscape than alternatives A and B. This is primarily due to the proposed locations for parking at Elkhorn Tavern and at the new horse trail parking and trailhead.

To further minimize impact to the cultural landscape, the following should be considered. The first three considerations (a., b. and c.) are noted on the figures.

a. Consider additional archeological investigations as part of the highway realignment to identify any remnants or features that may be associated with the historic alignment of South Road. Refer to Wieh's 2004 mapping and the CLR's historic period plan: *The Battle of Pea Ridge (1862 to 1865)*.
b. Collaborate with AHTD on the final alignment of the new highway to avoid any potential locations of Pratt's Store, Telegraph Road or South Road.
c. Follow the guidance provided in the CLR (currently being developed as part of Part 2. Treatment) for the 'restoration' of Telegraph Road. It is likely that the road will be repaired to reflect its historic 1862 character in alignment, width and material as best determined by available information. A restoration is not likely as the detailed documentation required for this approach is not currently available.
d. Design guidelines for the integration of any new structures such as a restroom should be undertaken to ensure new features do not diminish the integrity of the cultural landscape. Guidelines for the proposed new parking areas should also be undertaken.

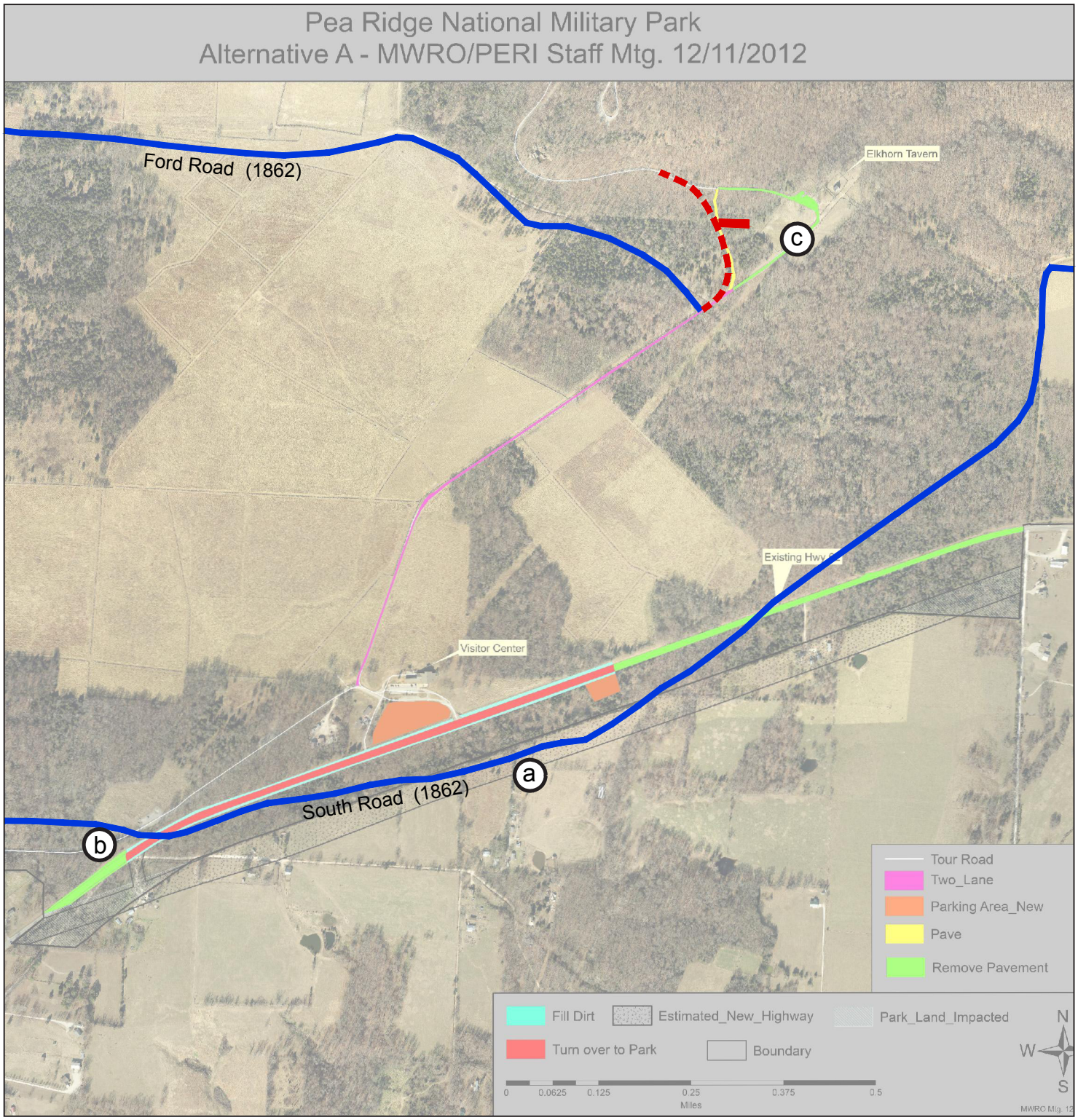

Pea Ridge National Military Park
Alternative A - MWRO/PERI Staff Mtg. 12/11/2012
Ford Road (1862)
Elkhorn Tavern
c
Existing Hwy
Visitor Center
a
South Road (1862)
b
Tour Road
Two_Lane
Parking Area_New
Pave
Remove Pavement
Fill Dirt
Estimated_New_Highway
Park_Land_Impacted
Turn over to Park
Boundary
0
0.0625
0.125
0.25
0.375
0.5
Miles
N
W
S
MWRO Mtg. 12

Figure 1

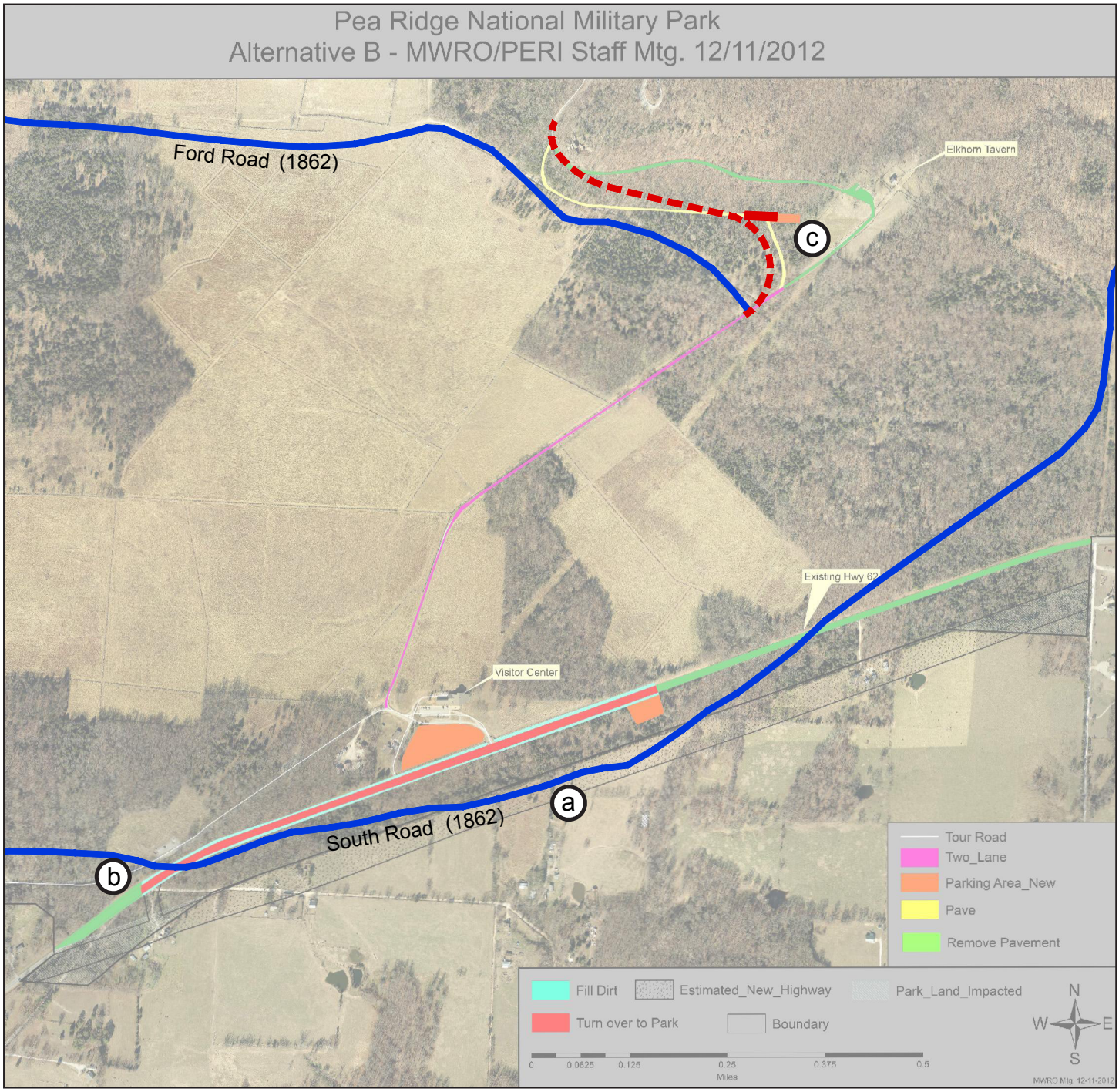
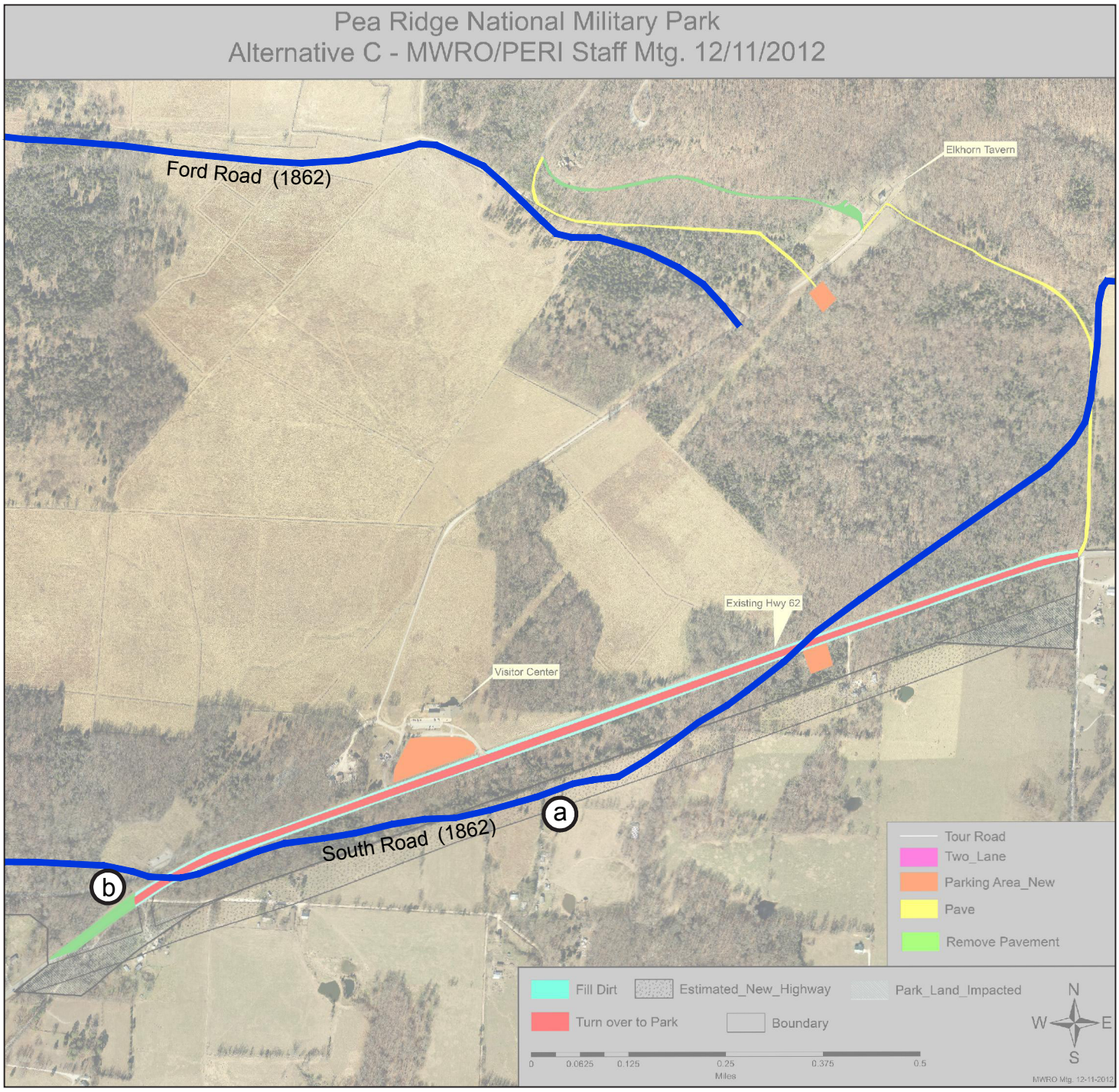

Pea Ridge National Military Park
Alternative B - MWRO/PERI Staff Mtg. 12/11/2012
Ford Road (1862)
Elkhorn Tavern
c
Existing Hwy 62
Visitor Center
a
South Road (1862)
b
Tour Road
Two_Lane
Parking Area_New
Pave
Remove Pavement
Fill Dirt
Estimated_New_Highway
Park_Land_Impacted
Turn over to Park
Boundary
N
W
E
S
0
0.0625
0.125
0.25
0.375
0.5
Miles
MWRO Mtg. 12-11-2012

Figure 2


Pea Ridge National Military Park
Alternative C - MWRO/PERI Staff Mtg. 12/11/2012
Ford Road (1862)
Elkhorn Tavern
Existing Hwy 62
Visitor Center
South Road (1862)
a
b
Tour Road
Two_Lane
Parking Area_New
Pave
Remove Pavement
Fill Dirt
Estimated_New_Highway
Park_Land_Impacted
Turn over to Park
Boundary
0
0.0625
0.125
0.25
0.375
0.5
Miles
N
W
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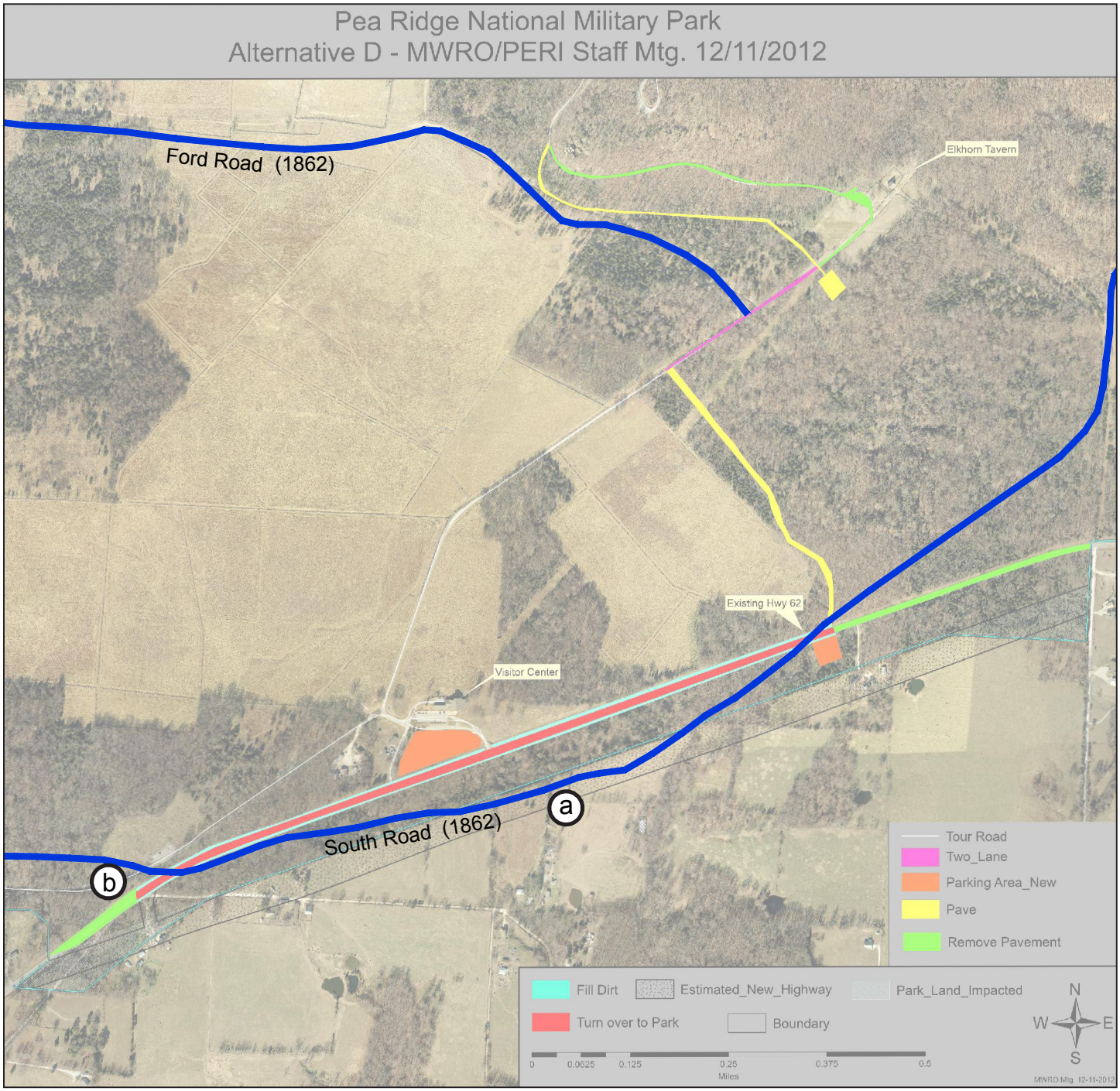
S
MWRO Mtg. 12-11-2012

Figure 3


Pea Ridge National Military Park
Alternative D - MWRO/PERI Staff Mtg. 12/11/2012
Ford Road (1862)
Elkhorn Tavern
Existing Hwy 62
Visitor Center
South Road (1862)
a
b
Tour Road
Two_Lane
Parking Area_New
Pave
Remove Pavement
Fill Dirt
Estimated_New_Highway
Park_Land_Impacted
Turn over to Park
Boundary
N
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0.0625
0.125
0.25
0.375
0.5
Miles
MWRO Mtg. 12-11-2012

Figure 4

Pea Ridge National Military Park

U.S Highway 62 Mitigation CLR Guidance

2013

Form No. 10-306 (Rev. 10-74)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

FOR FEDERAL PROPERTIES

FOR NPS USE ONLY
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DATE ENTERED

SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME

HISTORIC
Pea Ridge Battlefield

AND/OR COMMON
Pea Ridge National Military Park

2 LOCATION

STREET & NUMBER
Pea Ridge National Military Park — _NOT FOR PUBLICATION

CITY, TOWN
Pea Ridge — X VICINITY OF — CONGRESSIONAL DISTRICT 3

STATE
Arkansas — CODE 05 — COUNTY — CODE

3 CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE	
X DISTRICT	X PUBLIC	_OCCUPIED	_AGRICULTURE	_MUSEUM
_BUILDING(S)	_PRIVATE	_UNOCCUPIED	_COMMERCIAL	_PARK
_STRUCTURE	_BOTH	_WORK IN PROGRESS	_EDUCATIONAL	_PRIVATE RESIDENCE
_SITE	**PUBLIC ACQUISITION**	**ACCESSIBLE**	_ENTERTAINMENT	_RELIGIOUS
_OBJECT	_IN PROCESS	X YES: RESTRICTED	X GOVERNMENT	_SCIENTIFIC
	_BEING CONSIDERED	_YES: UNRESTRICTED	_INDUSTRIAL	_TRANSPORTATION
		_NO	_MILITARY	_OTHER:

4 AGENCY

REGIONAL HEADQUARTERS: *(If applicable)*
U.S. Government, Department of Interior, National Park Service

STREET & NUMBER
Southwest Regional Office — P.O. Box 728

CITY, TOWN
Santa Fe, — ___ VICINITY OF — STATE New Mexico

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC.
Benton County Courthouse

STREET & NUMBER

CITY, TOWN
Bentonville — STATE Arkansas

6 REPRESENTATION IN EXISTING SURVEYS

TITLE
Historic American Buildings Survey: Elkhorn Tavern (ARK - 23)

DATE
1963 — X FEDERAL _STATE _COUNTY _LOCAL

DEPOSITORY FOR SURVEY RECORDS
Library of Congress

CITY, TOWN
Washington — STATE D.C.

7 DESCRIPTION

CONDITION		CHECK ONE	CHECK ONE
_EXCELLENT	X DETERIORATED	_UNALTERED	X ORIGINAL SITE
X GOOD	X RUINS	X ALTERED	_MOVED DATE_____
_FAIR	X UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

Pea Ridge National Military Park comprises 4,300.35 acres in the foothills country of northwestern Arkansas. The battlefield is dominated by Pea Ridge, a long, low, rugged mountain in the northern part of the Park that rises to 1,601 feet and runs from east to west almost the width of the Park. A smaller mountain known as Round Top rises just to the south; the remainder of the Park is a high plateau leading up to Pea Ridge from the south. Of several small creeks in the Park, the most prominent is Winton Spring Branch, which originates at a natural spring some distance below the Winton Spring House, in the south central part of the Park, then runs southwestward toward Little Sugar Creek.

This landscape has not been altered much since the time when the site achieved its significance. Heavy stands of oak, hickory, and other hardwoods cover Pea Ridge Mountain, today as in 1862. The plateau south of Pea Ridge, at the time of the battle, was a patchwork of thick woods, prairies, and cultivated fields, the whole dissected by roadways. Today the same general pattern is retained, with historic fields actively cultivated under lease arrangements with local farmers. These features of the Pea Ridge landscape--the high rugged ridge, the thick woods, the patches of open fields--strongly influenced the course of the battle, and are in themselves historic resources.

The two-day conflict waged here in March, 1862, left few enduring marks on the land. In the small detached, southern area of the Park are the remnants of earthworks thrown up by Union soldiers; these constitute the only above-ground physical evidence of the battle. Oriented towards the south, the earthworks originally were long, heavy mounds of earth, with trenches dug behind, or north, of them. These defenses were erected on the high bluffs north of Little Sugar Creek. They appear to have been erected beginning about two-thirds mile east of Winton Spring Branch, and extended eastward intermittently for approximately two miles. Portions of the earthworks have resisted erosion over the years and are clearly visible to this day in the detached area of the Park. They appear as long, low ridges, with trenches along their north side, and represent perhaps one-sixth of the original extent of the defenses. A paved interpretive trail to the trenches has been constructed. The total length of the original trenches probably extended beyond the current detached unit boundaries. Several attempts have been made to locate additional trenches outside the current boundaries, but without success. It is likely that only those trenches inside the current boundaries were of a size and construction to have survived, while others outside the boundaries have since eroded away.

The Battle of Pea Ridge centered around two areas to the north of Little Sugar Creek: the village of Leetown and Elkhorn Tavern. The Elkhorn Tavern, situated just east of Pea Ridge, was originally constructed c. 1835, as a two-story log house with two stone chimneys and a full-length porch running along the front side on both stories. In the 1850s, the house was weatherboarded

and painted white, and an outside front staircase was added on the northeast end of the porch. These changes, along with a set of elkhorns mounted on the ridgepole, gave the building the appearance it presented during the Battle of Pea Ridge. After the battle, bushwhackers burned the building to the ground, leaving only the foundation and the two chimneys. Upon these remnants a new tavern, a one-story wood frame structure, was erected immediately after the War. By the 1880s a second story had been added, and the building had assumed an appearance very similar to that of the pre-Civil War structure. Notable differences included the absence of an outside front staircase and the addition of two extra windows on the upper story of the front (east) side of the house.

Several alterations were undertaken between 1905 and 1917, including the addition of a rear wing, the extension of the north wall of the main wing, and the remodeling of the front porch. These changes were removed when the Park Service, in 1966, restored the structure to its 1880s appearance, reasoning that restoration to the actual wartime period was not feasible due to a lack of documentation. The two-story structure as it appears today is of single-wall frame construction, with white-painted drop siding; it measures 34' 6" x 32' 6". A full-length porch, its wood railing painted deep red, runs along both stories on the front (east) side of the house. The gable roof is wood-shingled, and there is a stone chimney at each gable end. Inside the building there are two large rooms on the ground floor, and two rooms and an attic on the second floor; there are two interior staircases. Attached to the rear of the building on the main floor is a lean-to structure in which there are public restrooms and a modern utility area; these modern intrusions are scheduled for removal.

Leetown, the site of the other major engagement in the Battle of Pea Ridge, is located near the southwest corner of the Park. In 1862, this small village consisted of several residences, perhaps a few stores, and a Masonic lodge. Most of these buildings were destroyed after the battle, and only a small burial plot is visible at the townsite today. The subsurface remains of this town constitute an important historic resource.

Several historic roads used in the course of the battle are still visible in the Park. The Ford road runs east and west along the southern base of Pea Ridge and connects at its eastern terminus with the Telegraph Road. The Huntsville Road branches off the Telegraph Road near the Elkhorn Tavern, and runs eastward toward Huntsville, Arkansas. Both the Ford and Huntsville roads appear today as primitive, two-rut road traces, rocky in places. The Telegraph Road traverses the Park on a geneally north-south line, passing to the east of Pea Ridge and directly in front of the Elkhorn Tavern. In 1862 a telegraph line, inoperative during the battle, was strung between poles and trees along the Telegraph Road; all traces of the telegraph line are gone today. Entering the Park at Cross Timber Hollow, north of the Elkhorn Tavern, the Telegraph Road is a narrow,

rocky, two-rut road trace until just before it reaches the Tavern, where it widens noticeably. South of the Tavern the road is paved over almost entirely, as it forms part of the Park's tour road. South of the boundary of the main area of the Park, the road reappears as a dirt tract; it is used infrequently as a means of access to the detached area of the Park.

Just north of the Huntsville Road, a short distance east of the Elkhorn Tavern, are the concrete and stone foundations of the Clemens House. Portions of the stone foundations may date to the time of the battle.

Monuments to those who died in the battle were erected in the late nineteenth century. They are located in a small field across the tour road from the Elkhorn Tavern. The Monument to the Confederate Dead, of carved limestone with inscriptions, was erected in 1887. In 1889 the Monument to the Union Soldier, also of carved limestone and with inscriptions and reliefs, was placed close to the Confederate marker.

Beyond these historic resources, there are within Pea Ridge National Military Park several structures which do not relate to the period of 1862. The Winton Spring House was constructed in its present form around 1915 upon foundations which date from the 1800s. In July 1979, it was determined not eligible by personnel in the offices of the National Park Service and State Historic Preservation Officer. Other structures within the Park which are excluded from the present nomination and which do not meet National Register criteria include the National Park Service residence area, the visitor center, and the attached maintenance area. These modern structures serve a management purpose and occasionally require alterations necessitated by a change in their functions. Modifications to these supportive buildings will reflect a compatible architectural style and will not intrude upon the historic resources of the Park.

There are no privately owned structures or parcels of land within the Pea Ridge Battlefield NMP boundaries. A list of historic features follows, divided into three components: standing structures, non-standing structures, and historic roads. These features are keyed to a map enclosed in this report.

1. Standing Structures (*historically significant)

A. Headquarters/Interpretive Center/Maintenance Building
B. Staff Quarters
C. Staff Quarters
D. Elkhorn Tavern*
E. Winton Spring House
F. Interpretive Shelter-Pea Ridge West Overlook

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

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DATE ENTERED

Pea Ridge Battlefield

II. Non-Standing Structures (all are historically significant--potential archeological remains)

A. Little Sugar Creek Trenches
B. General Curtis' Headquarters Site
C. Leetown
D. The Tanyard

III. Non-Standing Structures (unknown-significance)

A. Pratt's Store
B. J. Ruddick Structures
C. Unidentified
D. Unidentified
E. Unidentified
F. Unidentified
G. Wiley Foster Structure
H. Unidentified Log Cabins
I. Amos J. Patterson Structure
J. Unidentified Log Cabin
K. "Sturdy"
L. G. W. Ford Structure (1)
M. G. W. Ford Structure (2)
N. Unidentified Structure
O. Barn
P. Unidentified Structure
Q. Clemens House
R. Log Barn

IV. Historic Roads

A. Old Telegraph, or "Wire" Road
B. Huntsville Road
C. Ford Road

Justification for Boundaries: The boundaries conform to the boundaries of Pea Ridge National Military Park. The battle at Pea Ridge was characterized by maneuver, cavalry action, the use of artillery, and hand-to-hand combat. As a result, the battle of Pea Ridge actually occurred at several points at different times. The present Pea Ridge Battlefield NMP boundaries contain the sites of these various confrontations, as well as most routes of march and much land upon which no fighting actually occurred, but which was important in terms of its effect upon the strategy and tactics employed by both sides during the battle.

8 SIGNIFICANCE

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW				
__PREHISTORIC	__ARCHEOLOGY-PREHISTORIC	__COMMUNITY PLANNING	__LANDSCAPE ARCHITECTURE	__RELIGION	
__1400-1499	__ARCHEOLOGY-HISTORIC	__CONSERVATION	__LAW	__SCIENCE	
__1500-1599	__AGRICULTURE	__ECONOMICS	__LITERATURE	__SCULPTURE	
__1600-1699	__ARCHITECTURE	__EDUCATION	X MILITARY	__SOCIAL/HUMANITARIAN	
__1700-1799	__ART	__ENGINEERING	__MUSIC	__THEATER	
X 1800-1899	__COMMERCE	__EXPLORATION/SETTLEMENT	__PHILOSOPHY	__TRANSPORTATION	
__1900-	__COMMUNICATIONS	__INDUSTRY	__POLITICS/GOVERNMENT	__OTHER (SPECIFY)	
		__INVENTION			

SPECIFIC DATES BUILDER/ARCHITECT

STATEMENT OF SIGNIFICANCE

Pea Ridge was the Civil War battle that saved the state of Missouri for the Union. The two-day engagement fought in the northwest corner of Arkansas was a Federal victory, despite the fact that Union forces were outnumbered and were fighting in Confederate territory. The Battle of Pea Ridge was the final, dramatic stage in Federal Brigadier General Samuel R. Curtis's campaign to drive pro-Confederate forces from Missouri. And it put an end to Confederate commander General Earl Van Dorn's ambitions toward gaining control of the state and its nerve center, St. Louis.

General Curtis, having taken command of the Federal Southwestern District of Missouri in December, 1861, had pushed the pro-Confederate Missouri State Guard into northern Arkansas by mid-February, 1862. The Southerners consolidated forces for a determined drive back to the north. General Van Dorn on March 3 took command of a combined force of 16,000 Confederates, including three regiments of Creek and Cherokee Indians. His first goal was to deal a strong blow to General Curtis who, with some 10,000 Union troops, still lingered to the north of him in the vicinity of Pea Ridge.

When he learned of the impending attack, Curtis established a stronghold on the north bank of Little Sugar Creek. He anticipated a strike from the south, but Van Dorn decided instead to circle westward, to a position north of the Federals, and attack them from the rear. On the morning of March 7, 1862, Van Dorn organized a two-pronged attack, with part of his force moving southward down the Telegraph Road from a point just east of Pea Ridge, and the other half-striking toward the village of Leetown, starting from the western end of Pea Ridge. Heavy fighting all day resulted in a Union victory at Leetown, where two Confederate generals were killed, and a Confederate victory in the eastern area, where the fighting centered around the Elkhorn Tavern. The contest could have been called a draw when the battle resumed on the morning of March 8, but the fact that Curtis was well-supplied with ammunition, while Van Dorn had left his ammunition wagons several miles behind him, soon determined the outcome. By noon the Confederates were retreating rapidly eastward, down the Huntsville Road. The Battle of Pea Ridge, one of the most decisive Civil War engagements fought west of the Mississippi River, had ended.

There would be later Confederate attempts to invade Missouri, but these would be easily repulsed. The more immediate effect of the battle, which left the Confederate force weakened and scattered, was to retard Van Dorn's progress toward Shiloh and keep him from contributing to Confederate strength in that struggle.

9 MAJOR BIBLIOGRAPHICAL REFERENCES

Bearss, Edwin C. Leetown, Elkhorn Tavern Grounds, Federal Earthworks and Tanyard as of March, 1862. MS prepared for the National Park Service, 1965. Copy in Southwest Regional Office, National Park Service, Santa Fe, New Mexico.

Bond, John W. Interpretive Prospectus for Pea Ridge National Military Park. MS prepared for the National Park Service, 1961. Copy in Southwest Regional Office. National Park Service, Santa Fe, New Mexico.

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY 4300.35

UTM REFERENCES

	ZONE	EASTING	NORTHING
A	15	410520	4036620
B	15	410440	4033785
C	15	407800	4033035
D	15	405740	4030700

VERBAL BOUNDARY DESCRIPTION

The boundaries for the National Register District are those shown on the attached boundary map. These boundaries are identical to those for Pea Ridge National Military Park.

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE	CODE	COUNTY	CODE
STATE	CODE	COUNTY	CODE

11 FORM PREPARED BY

NAME / TITLE
Jane E. Scott/Dwight T. Pitcaithley

DATE
June, 1979

ORGANIZATION
National Park Service, Southwest Regional Office

STREET & NUMBER
P.O. Box 728

TELEPHONE
505 988-6501

CITY OR TOWN
Santa Fe,

STATE
New Mexico 87501

12 CERTIFICATION OF NOMINATION

STATE HISTORIC PRESERVATION OFFICER RECOMMENDATION

YES____ NO____ NONE____

STATE HISTORIC PRESERVATION OFFICER SIGNATURE

In compliance with Executive Order 11593, I hereby nominate this property to the National Register, certifying that the State Historic Preservation Officer has been allowed 90 days in which to present the nomination to the State Review Board and to evaluate its significance. The evaluated level of significance is ✓ National ____State ____Local.

FEDERAL REPRESENTATIVE SIGNATURE Edwin C Bearss

TITLE Chief Historian, Natl. Park Service DATE Oct. 10, 1984

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

Patrick Andrus - accept documentation. District listed 10/16/66 DATE 12/5/84

DIRECTOR, OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION

ATTEST: DATE

KEEPER OF THE NATIONAL REGISTER

GPO 899-214

The Telegraph Road, the Elkhorn Tavern, the archeological remains at Leetown and the Federal earthworks north of Little Sugar Creek are the primary historic resources in Pea Ridge National Military Park today, and all are directly linked to the battle of 1862. The Federal earthworks, although not actually used in the fight, nevertheless helped determine the course of the battle, for they presented so formidable a barrier to an approach from the south that Van Dorn was forced to strike from another direction. The Telegraph Road, a major avenue for traffic between Missouri and Arkansas, was used by both Union and Confederate troops for transporting men and supplies before and during the battle. It was crucial to Van Dorn's strategy, and was the scene of actual fighting on both days of the battle.

The Elkhorn Tavern was located on the Telegraph Road and, on the morning of March 7, 1862, was the midpoint between Curtis's headquarters to the south and the easternmost of Van Dorn's forces to the north. Occupied by the Federals when the battle began, the tavern was taken by Confederate soldiers on the afternoon of March 7, then abandoned on March 8 when the Southerners retreated eastward. The Cox family, owners of the building, occupied it throughout the battle, taking refuge in the basement while first Federals and then Confederates used their home as a hospital, supply depot, and military headquarters. The Union army continued to occupy the Elkhorn Tavern intermittently after the Battle of Pea Ridge was over. It served as the last station of the military telegraph line running out of St. Louis and as a headquarters site. Later, the tavern was burned by bushwhackers, probably in late 1862 or early 1863. After the war, Joseph Cox, who had been in the basement during the battle, rebuilt the tavern to resemble the original structure. The building has now been restored to its appearance during the Battle of Pea Ridge.

Leetown was the second area of the battle. The Union artillery and supporting infantry lined up along the north end of Leetown. The Confederate troops pressed through the woods and across Round Top to attack, but failed to defeat the Federal troops. Two Confederate generals, Benjamin McCulloch and James McIntosh, were killed in the battle. In addition, Cherokee Indians, who were fighting for the Confederates successfully charged a three-gun Union artillery battery. Most had never seen artillery and called the cannons "shooting wagons." Shortly afterwards, however, cannon fire from Union batteries crushed the Indian ranks and so demoralized them that they took cover in the woods with limited participation in the remaining battle.

The monuments to the Confederate Dead (1887) and to the Union Soldier (1889) are examples of early commemoration efforts. They also illustrate how Americans thirty years after the battle chose to remember and memorialize their dead soldiers and past heroes.

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

FOR NPS USE ONLY
RECEIVED
DATE ENTERED

Pea Ridge Battlefield

Zone	Easting	Northing
E 15	404 520	4030 740
F 15	404 680	4036 780

	PERI CLR Features / FMSS Record Crosswalk Table - Analysis and Evaluation										
	CLR Feature	LCS / CLI Number / Feature	CLR Evaluation	FMSS Asset Type (ASSET CODE)	FMSS Location (PARENT LOCATIONS)	FMSS Asset (ASSET NUMBER)	Deficiency (Historic)	Additional Guidance	Site/Parent/Area	Location	Children of location
Land Use											
	Leetown Cemetery	407793, HB-25	contributing								
	Ford Cemetery	407794, HB-24	contributing								
Circulation											
	ROADS										
	tour road (PERI Tour Road Rt 300)		non-contributing	Roads (1100)		408545	Yes		PERI	77808	77892,77894, 77895,77897, 78006,78052, 78058,78285, 78286
	Old Highway 72		non-contributing	Roads (1100)			No	non-NPS	Not in FMSS		
	Highway 72		non-contributing	Roads (1100)			No	non-NPS	Not in FMSS		
	Highway 62		non-contributing	Roads (1100)			No	non-NPS	Not in FMSS		
	Ford Road(EH Ford Road Rt 401)	12503, HB-08	contributing	Roads (1100)			Yes		77796	77893	no children
	Foster's Lane		contributing	Roads (1100)			Yes		Not in FMSS		
	Oberson Road, 1963		contributing	Roads (1100)			Yes		Not in FMSS		
	Winton Springs Road, 1963			Roads (1100)		413102					
	from Lee Creek to tour road		contributing				Yes				
	EH Winton Spring Road Rt 202		non-contributing						77796	78902	94875
	from horse parking area to Lee Creek		contributing				Yes				
	Leetown Road			Roads (1100)					Not in FMSS		
	north south from tour road to Ford Road		contributing				Yes		Not in FMSS		
	north south through Leetown Hamlet		contributing				Yes		Not in FMSS		
	east from Leetown Hamlet		contributing				Yes		Not in FMSS		
	Lee Creek Road		contributing				Yes		Not in FMSS		
	Old Leetown Road / Co Road		contributing				Yes		Not in FMSS		
	County Roads								Not in FMSS		
	1 - west PL to Visitor Center		non-contributing						Not in FMSS		
	2 - north south, parallels Leetown Road		non-contributing						Not in FMSS		
	3 - north south, tour road to Winton Springs		non-contributing						Not in FMSS		

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	4 - short south spur off Ford Road		non-contributing						Not in FMSS		
	5 - east west at Ford Road		non-contributing						Not in FMSS		
	Pratt's Road		unknown				Yes		Not in FMSS		
	EH Telegraph Road Rt 400	12508, HB-21		Roads (1100)		409068	Yes		77796	77924	no children
	Butterfield / Overland Express Route		contributing								
	Trail of Tears		contributing								
	Williams Hollow		contributing								
	tour road		non-contributing								
	Road Trace		contributing								
	EH Huntsville Road Rt 201	12500, HB-01	contributing	Roads (1100)	Elkhorn Tavern Battle Area (77796)	409073	Yes		77796	77927	no children
	South Road						Yes		Not in FMSS		
	Leetown to Clemens		contributing						Not in FMSS		
	No Name Road 3' Leetown Road to visitor center		contributing						Not in FMSS		
	Visitor Center / Pratt's House / Store to Hwy 62		unknown						Not in FMSS		
	Ruddick's Road' Hwy 62 to Huntsville Road		contributing						Not in FMSS		
	Alvin Seamster Road		non-contributing	Roads (1100)					Not in FMSS		
	Dodd Road		contributing	Roads (1100)			Yes		Not in FMSS		
	Twelve Corners Road		contributing	Roads (1100)			Yes		Not in FMSS		
	TRAILS										
	EH Horse Trail		non-contributing	Trails (2100)		1253022	Yes		77796	77908	no children
	Broad Ridge Trail		non-contributing	Trails (2100)							
	Park Loop Trail /EH Hiking Trail		non-contributing	Trails (2100)					77796	77910	78284
	Trail to Federal Trenches FE Trail		non-contributing	Trails (2100)	Federal Earthwork Area (77799)		Yes		77799	77980	no children

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Views and Vistas									No views or vistas in FMSS		
	View to Elkhorn Mountain from Telegraph Road		contributing	not applicable	not applicable						
	View to and from Elkhorn Tavern from Telegraph Road		contributing	not applicable	not applicable						
	View from Huntville Road to Elkhorn Tavern		contributing	not applicable	not applicable						
	View from Welfley's Knoll		contributing	not applicable	not applicable						
	View across Leetown Battlefield		contributing	not applicable	not applicable						
Buildings and Structures											
	HQ Visitor Center/Maintenance Shop		non-contributing	Buildings (4100)	Headquarters Area (HQ) (77800)				77800	78018	80071
	HQ Administration And HQ Resoource Management		non-contributing	Buildings (4100)					77800,	77800,78025,	##########
	Maintenance Buildings		non-contributing	Buildings (4100)					77800	98963,78031,106099,78196	
	EH East Overlook		non-contributing	Buildings (4100)	Elkhorn Tavern Battle Area (77796)		Yes		77796	77907	
	EH Elkhorn Tavern	1203, HB-05	contributing	Buildings (4100)			Yes		77796	77898	
	Elkhorn Tavern outbuildings		contributing	Maintained Archeological Site (7200)			Yes	archeological investigations needed to locate	Not in FMSS		
	EH Elkhorn Tavern Spring	66455, HB-5.A	contributing	Maintained Landscapes (3100)					77796	94879	
	Cave Entrance		contributing	Maintained Landscapes (3100)					Not in FMSS		

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EH Monument to Confederate Generals	12501, HB-06	contributing	Outdoor Sculptures (7100)	Elkhorn Tavern Battle Area (77796)		Yes		77796	77899	
EH Monument to Reunited Soldiery	12502, HB-07	contributing	Outdoor Sculptures (7100)			Yes		77796	77901	
EH Tan Yard Foundations		non-contributing	Maintained Archeological Site (7200)					77796	77905	
EH Clemens' Foundation		contributing	Buildings (4100)			Yes		77796	77903	
Pratt's House / Store site EH Pratts Store Foundation		unknown	Maintained Archeological Site (7200)					77796	77902	
Ruddick (Ford) House foundation		contributing	Maintained Landscapes (3100)			Yes		Not in FMSS		
tannery house foundation	407788, HB-22-A	non-contributing						77905		
tannery well	407790, HB-22-B	unknown						77905		
house foundation at tour stop 2		non-contributing	Buildings (4100)			Yes				
LB Winton Springs House foundation Ruin		contributing	Buildings (4100)	Leetown Battlefield Area (77794)		Yes		77794	78059	
Winton Springs House- spring houses		contributing				Yes		Not in FMSS		
Log Cabin (Morgan's Woods)		contributing	Buildings (4100)					Not in FMSS		
Sturdy House foundation		contributing	Maintained Archeological Site (7200)				further research / investigation needed	Not in FMSS		
Wiley Foster structures foundations		contributing	Maintained Archeological Site (7200)			Yes		Not in FMSS		

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	CLR Feature	LCS / CLI Number / Feature	CLR Evaluation	FMSS Asset Type (ASSET CODE)	FMSS Location (PARENT LOCATIONS)	FMSS Asset (ASSET NUMBER)	Deficiency (Historic)	Additional Guidance	Site/Parent/Area	Location	Children of location
	Amos J. Patterson structure		contributing	Maintained Archeological Site (7200)			Yes		Not in FMSS		
	Patten House		unknown						Not in FMSS		
	Federal Trenches (FE Trenches)	12507, HB-14	contributing	Maintained Archeological Site (7200)	Federal Earthwork Area (77799)		Yes		77799	77988	
Small scale Features											
	Worm Fences			Assets of the Cultural Grounds			Yes		Numerous/varies		
	HQ U.S. Army Headquarters Mounument	12505, HB-10	contributing	Outdoor Sculptures (7100)	Headquarters Area (HQ) (77800)		Yes		77800	94876	
	Post and Rail Fence		non-contributing	Maintained Landscapes (3100)			No		77800	78189	
	Entrance monument		non-contributing	Roads (1100)			No		408545		
	Stone Walls - tour road		non-contributing	Roads (1100)			Yes		408545		
	Interpretive Signs		non-contributing	Maintained Landscapes (3100)					Not in FMSS		
	Regulatory and Directional Signs		non-contributing	Roads (1100)					408545		
Vegetation									NOT in FMSS		
	Fields		contributing	Maintained Landscapes (3100)					NOT in FMSS		

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	Historic Trees		contributing	Maintained Landscapes (3100)				further research / investigation needed	NOT in FMSS		
	Forests						Yes	further research / investigation needed			
Constructed Water Features									Not in FMSS		
	Wells pre-1865		contributing				Yes	further research / investigation needed	Not in FMSS		
	Wells on Foster's Lane		contributing						Not in FMSS		
	Quarry Pond		non-contributing						Not in FMSS		
	Stock Pond		non-contributing						Not in FMSS		
	Deficiency = yes denotes need to bring feature to a good condition and to ensure or improve integrity										

PERI CLR Features / FMSS Record Crosswalk Table - Treatment Summary

top line is category as per Landscape Lines 17; (in parenthesis is old FMSS language)

CLR Treatment Project Component Task / FMSS Work Order	Priority	CLR Treatment Task Component / FMSS Task	FMSS Asset Type (ASSET CODE)	FMSS Location (PARENT LOCATIONS)	FMSS Asset (ASSET NUMBER)	FMSS Work Type / Sub-Type*	Recurring Maintenance Needed	Units	Unit of Measure	Children of Location
Task 1. Repair Elkhorn Tavern cultural landscape		1. Reroute Tour Road and move parking area from historic core of Elkhorn Tavern			Asset record needed		no	10 to 20 historic area	AC	
		10. Plant trees in orchard in historic space, pattern, configuration - number confirmed by #1.			Asset record needed		no	4 outbuildings	EA	
	1/10	11. Plant vegetation in fields - full extent of historic fields - refer to veg plan - areas need to be left for interpretation and access.		Elkhorn Tavern Battle Area (77796)	Asset record needed	FM / DM	yes	20 - clearing, paving removal	AC	
		2. Repair monument bases, lettering, finishes and walkway to monuments	Maintained Landscapes (3100)		408545		no	400 lf roadway / walkways 12000 sf parking	LF SF	
		3. Conduct archeological investigations to determine locations of non-extant features.			Asset record needed		yes	worm fences	LF	
		4. Mark Elkhorn Tavern non-extant outbuildings and features from archeological investigations.			Asset record needed		yes (regular mowing)	grasses	AC	
		5. Repair east overlook shelter for as long as it is left in place and maintained.			Asset record needed		yes (annual pruning)	42 apple trees	EA	
		6. Establish historic boundaries by 10 to 20 acres by removal of vegetation and non-contributing features	Outdoor Sculptures (7100)		Asset record needed				AC	

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		7. Install worm fences to definefull extent of historic boundaries	Maintained Landscapes (3100)		Asset record needed		yes (annual vegetation thinning)	vegetation removal, clearing, thinning	AC	
		8. Repair Clemens' House foundation and mark barn foundation.			Asset record needed			painting, maintenance	EA	
		9. Restore the view to the rock outcropping on the south bluff of Elkhorn Mountain.	Maintained Archeological Sites (7200)		EH Clemens Foundation (77903)		yes (maintain materials)	two foundations	EA	
Task 2. Repair Federal Trenches		4. Research Civil War construction of fortifications, and techniques at Federal Trenches	Fortification (7300)	Federal Earthwork Area (77799)	77988		no	historical research archeologial	EA	
	2/10	1. Repair trench according to best practices			FE Trenches (77988)		yes (annual vegetation thinning)	trench	LF	
		2. Repair existing trail with steps, erosion control and revegetation			FE Trail (77980)		yes (trail upkeep)	asphalt trail, new steps, waterbars, vegetation	LF	
		3. Thin and prune vegetation on hillside in front of trench to restore historic views			77799		yes (annual vegetation thinning)	tree removal, pruning, thinning	AC	
Task 3. Restore views to and from battlefields	4/10	1. Maintain historically open areas free of obstructions and large vegetation.	Maintained		Asset record needed	EM / DM	yes (annual vegetation removal)		AC	
		2. Remove vegetation to restore view to Leetown Battlefield from Foster's Field		Leetown Battlefield Area (77794)	Asset record needed		yes (annual vegetation removal)	45 (vegetation clearing)	AC	

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		3. Remove vegetation to restore views to and from Welfley's Knoll.	Landscapes (3100)	Elkhorn Tavern Battle Area (77796)	Asset record needed	FM / BM	yes (regular mowing)	3 fields, appx 60 ac (fields)	AC	
		4. Maintain views from Tour Road and tour stops to the battlefield		PERI Tour Road Rt 300 (77808)	Asset record needed			vegetation management	AC	
Task 4. Repair Telegraph Road	5/10	1. Reroute Tour Road off historic alignment (near Elkhorn Tavern)	Roads (1100)	Elkhorn Tavern Battle Area (77796)	EH Telegraph Road Rt 401 (77924)		yes (annual vegetation removal, grading)	3000 lf removed roadbed; 1600 lf new (road)	LF	
		2. Repair historic road surface and vegetation from Elkhorn Tavern to north boundary for pedestrian use			409068		yes (annual vegetation removal, grading)	6000 (road)	LF	
Task 5. Repair the historic road circulation system	6/10	1. Repair Ford Road along its original alignment, width and surfacing.	Roads (1100)	Elkhorn Tavern Battle Area (77796)	EH Ford Road RT 401 (77893)		yes (annual vegetation removal, grading)	13000 (road)	LF	
		2. Repair Huntsville Road along original alignment, to width and surfacing.		Elkhorn Tavern Battle Area (77796)	EH Huntsville Road Rt 201 (77927)		yes (annual vegetation removal, grading)	5000 (road)	LF	
		3. Repair Foster's Lane, Leetown Road and Lee Creek Road to original alignment, surfacing and widths.		Leetown Battlefield Area (77794)	Asset record needed		yes (annual vegetation removal)	6700 Lee Creek Rd; 6500 Leetown Rd; 2500 Foster's Lane; (road)	LF	
		4. Conduct investigations to determine alignment of Pratt's Road and South Road			Asset record needed		no	archeological investigation	EA	

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		5. Repair Winton Springs Road for service and trail use while the horse trailhead remains in use.	Roads (1100)	Elkhorn Tavern Battle Area (77796)	EH Winton Springs Road Rt 202 (78902)		yes (minor repair)	650 (road)	LF	94875
Task 8. Screen Visitor Center from battlefield landscapes	2/10	1. Plant trees and a native understory to screen north elevation.		Headquarters Area (77800)	Asset record needed		yes (periodic pruning, weeding to suppress invasives)		AC	80071
Task 10. Stabilize known foundations of extant contributing buildings and structure remnants	7/10	1.Stabilize remnants at Winston Springs house site.	Maintained Archeological Sites (7200)	Leetown Battlefield Area (77794)	LB Winton Springs House Ruin (78059)		no	1 (house) 2 (outbuilding)	EA	
		2. Stabilize log cabin remnants.			Asset record needed		no	1 (log cabin)	EA	
		3. Conduct further investigations to confirm dates of construction.					no	archeological investigations	EA	
Task 11. Mark foundations of non-extant contributing buildings and structure	6/10	1. Conduct archeological investigations to determine locations of non-extant features.					no	1 (cabin)	EA	
		1. Mark Sturdy Cabin, G.W. Ford House and Barn, Amos J Patterson, Wiley Foster, J Ruddick			Asset record needed		no	1 (cabin)	EA	

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Task 12. Repair the setting of the Ford Farm	6/10	1. Conduct archeological investigations to determine locations of non-extant features.		Elkhorn Tavern Battle Area (77796)			no	archeological investigations	EA	
		2. Mark G.W. Ford House and Barn, and outbuildings			Asset record needed		no	1 (house), 1 (barn), 3 (structures)	EA	
		3. Establish historic boundaries and spaces of fields, orchards and forests			Asset record needed		yes (annual vegetation removal, grading)	archeological investigations	AC	
		4. Install worm fences to definefull extent of historic boundaries			Asset record needed		yes	worm fences	LF	
		6. Plant vegetation in fields - full extent of historic fields			Asset record needed		yes			
		7. Plant trees in orchard in historic space, pattern, configuration - number confirmed by #1.			Asset record needed		yes	1300 (peach trees)	EA	
Task 9. Reestablish patterns of the historic agricultural spaces	3/10	1. Reestabish plant species that depict the historic form and aesthetic.			Asset record needed		yes (annual vegetation removal, grading)			
Task 7. Manage Leetown Hamlet as an archeological landscape.	10/10	1. Plant grasses to spatially depict the full extent of Leetown Hamlet.	Maintained Archeological Sites	LB Cultural Grounds	Asset record needed		yes (annual vegetation removal, grading)	7 (mowing)	AC	
		2. Install fences to depict historic boundaries.			Fence / Gate (1028837 and 1028840)		yes		LF	

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		3. Conduct archeological investigations to determine locations of non-extant features.	(7200)	(78188)	Asset record needed		no			
		4. Mark non-extant buildings and structures base #3. above.			Asset record needed		no			
Task 6. Repair historic cemeteries.	10/10	1. Conduct archeological investigations to determine extent of cemeteries and historical research to identify associations with the battle or families.	Maintained Landscapes (3100)					archeological investigation historical research	EA	
		2. Repair Leetown Cemetery	Maintained Landscapes (3100)	LB Cultural Grounds (78188)	Asset record needed		yes (regular mowing, weed control, fence / grave stone repair)	400 (mowing)	SF	
		3. Repair Ford Cemetery	Maintained Landscapes (3100)	Elkhorn Tavern Battle Area (77796)	Asset record needed		yes (regular mowing, weed control, fence / grave stone repair)	12000 (mowing)	SF	
Task 13. Complete a trail plan		1. Determine which historic, and modern, roads would be used as trails.	Roads (1100)							78284
		2. Evaluate whether the horse trail should be moved.								

* FM - facility maintenance

DM - deferred maintenance. Work that is overdue or needs to be performed immediately due to deficiences or problems (stabilization needs, deterioration, etc.)

PM - preventative maintenance to be developed by park staff based on recurring maintenance required. Regularly scheduled minor maintenance (weeding, mowing, etc.)

Asset record to be assigned by park staff

RM (maintenance between 1 and 10 year cycles such as tree pruning or resurfacing stone aggregate walkways) may be identified in all three CL documents, but most detail is in a PMP.



Cultural Landscape Report and Environmental Assessment

Pea Ridge National Military Park
Garfield, Arkansas

2014