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Fort Leonard Wood Cantonment Landscape Context, Inventory, and Management

Megan Weaver Tooker, Sunny Stone, and Adam Smith

September 2007

Construction Engineering
Research Laboratory

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Final report

Prepared for Fort Leonard Wood
Directorate of Public Works Environmental Division
Fort Leonard Wood, MO 65473

Abstract: This document is an inventory and evaluation of the landscape features of the cantonment area at Fort Leonard Wood. This document serves to meet the requirements for Federal agencies to address their cultural resources, defined as any prehistoric or historic district, site, building, structure, or object, specifically, Section 110 which requires Federal agencies to inventory and evaluate their cultural resources.

The layout of the cantonment in response to the rolling hills and terrain of the Ozarks Highlands has quite an impact on the scenic views, the curvilinear roadways and the park-like open space on the parade ground. While the current layout, land use, and roadways remain very similar to the historic WWII landscape, field reconnaissance and historical data analysis did not provide sufficient evidence for the whole cantonment as a historic district. However, several component landscapes throughout the cantonment were determined eligible for the National Register of Historic Places. These landscapes include Veterans Park, Gammon Field, the Old Post Headquarters and the Red Cross Building, and the WWII Temporary Historic District. In addition, this report makes several recommendations for the maintenance and upkeep of the eligible component landscapes.

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Preface

This study was conducted for the U.S. Garrison Fort Leonard Wood, Directorate of Public Works/Environmental Division/Natural Resources Branch, Fort Leonard Wood, Missouri, under project number 129505, "Architectural Building Survey." Funding was provided by Military Interdepartmental Purchase Request (MIPR) 21/2020/220/MIPR5HCERLED72/PO, dated 25 May 2005. The Fort Leonard Wood technical monitor was Ms. Stephanie Nutt, Historic Archeologist.

The work was performed by the Land and Heritage Conservation Branch (CN-C) of the Installations Division (CN), Construction Engineering Research Laboratory (CERL). The CERL Project Manager was Mr. Adam Smith. Dr. Christopher M. White is Chief, CEERD-CN-C, and Dr. John Bandy is Chief, CEERD-CN. The Director of CERL is Dr. Ilker R. Adiguzel.

CERL is an element of the U.S. Army Engineer Research and Development Center (ERDC), U.S. Army Corps of Engineers. The Commander and Executive Director of ERDC was COL Richard B. Jenkins and the Director of ERDC was Dr. James R. Houston.

Unit Conversion Factors

Non-SI* units of measurement used in this report can be converted to SI units as follows:

Multiply	By	To Obtain
acres	4,046.873	square meters
cubic feet	0.02831685	cubic meters
cubic inches	0.00001638706	cubic meters
feet	0.3048	meters
inches	0.0254	meters
miles (U.S. statute)	1.609347	kilometers
square feet	0.09290304	square meters
square miles	2,589,998	square meters
yards	0.9144	meters

Système International d'Unités ("International System of Measurement"), commonly known as the "metric system."

1 Methodology

Background

Through the years, the U.S. Congress has enacted laws to preserve our national cultural heritage. The first major Federal preservation legislation was the Antiquities Act of 1906. This Act was instrumental in securing protection for archeological resources on Federal property. The benefits derived from this Act and subsequent legislation precipitated an expanded and broader need for the preservation of historic cultural resources. With this growing awareness, the U.S. Congress codified the National Historic Preservation Act of 1966 (NHPA), the most sweeping cultural resources legislation to date.

The U.S. Congress created the NHPA to provide guidelines and requirements aimed at preserving tangible elements of our past primarily through the creation of the National Register of Historic Places (NRHP). Contained within this piece of legislation (Sections 110 and 106) are requirements for Federal agencies to address their cultural resources, defined as any prehistoric or historic district, site, building, structure, or object. Section 110 requires Federal agencies to inventory and evaluate their cultural resources. Section 106 requires the determination of effect of Federal undertakings on properties deemed eligible or potentially eligible for the NRHP.

The United States Army Maneuver Support Center is located at Fort Leonard Wood (FLW), Missouri, off Interstate 44, in the northern portion of the Ozarks. FLW presently contains nearly 61,411 acres of the Missouri Ozarks and is located about 120 miles southwest of St. Louis, Missouri, and 85 miles northeast of Springfield, Missouri (Figure 1). The cantonment occupies approximately 6,000 acres in the northeast portion of the fort (Figure 2). Ranges and impact areas occupy most of the southern half of the fort.

FLW received its first Soldiers in April 1941, and its primary mission was to train Engineers for World War II (WWII). In 1946, the Army closed the camp, but reopened it in August 1950 for the Korean Conflict. FLW became a permanent fort in March 1956. The United States Army Engineer School (USAES) is located here along with the United States Army Chemi-

cal School (USACS) and the United States Army Military Police School (USAMPS).

Objectives

The objective of this effort was to perform an inventory of all significant landscapes in the FLW Cantonment area and evaluate their significance and integrity for inclusion on the NRHP. Any significant landscapes eligible include photographic and historical documentation, as well as general recommendations on how to preserve and/or protect these resources in the future.

Approach

The researchers approached the objective by first performing a site visit that included a survey and inventory of the cantonment landscape; photographing, and sketching site maps of major landscapes, and some archival research.

Site Visits

Members of the research team conducted two site visits to survey the landscape and conduct research. The site visits occurred in November and December 2005. During the site visits, researchers collected archival information such as maps and historic photographs from the installation and made preliminary determinations of historic eligibility. Researchers conducted site reconnaissance on foot and by car using photography, sketches, and note taking to help in getting an overall feeling for the cantonment landscape as a whole. Then smaller component landscapes were examined for integrity and NRHP eligibility.

Archival Research

Archival research involves several tasks. The first task is the initial literature review. The second is to identify and locate primary research materials.

Literature review

The research team used secondary literature to determine the general history of the cantonment at FLW. This involved reading published and unpublished material. Items looked at and reviewed for FLW included the

1987 Cantonment Historical Resources Survey, the 1992 Installation Building Survey, the 2002 FLW Building Survey: 1941 to 1956, and the 2003 Integrated Cultural Resources Management Plan.

Research material

The research team then located primary research materials and additional secondary materials to establish a strategy to best utilize these resources. Members of the research team conducted a visit to the National Archives at College Park, Maryland, in December 2005 and again in May 2006.

Analysis

After the initial research was complete, the team analyzed the gathered information and resources. Historic maps and photographs were examined and compared to current day conditions. For those landscapes with significance based on the historic context and themes, a determination of integrity was made.

Evaluation

The evaluation of structures and landscapes follows the guidelines in the *National Register Bulletin #15 How to Apply the National Register Criteria for Evaluation, and National Register Bulletin #16 How to Complete the National Register Registration Form*. In addition, the survey followed the Army's guidance for "*Documenting and Evaluating Historic Military Landscapes: An Integrated Landscape Approach*" and *National Register Bulletin #30: Guidelines for Evaluating and Documenting Rural Historic Landscapes.*

Researchers

The researchers utilized on this project were Megan Weaver Tooker, MLA as lead landscape historian; Sunny Stone, M.Arch. as assistant architectural historian; and Adam Smith, M.Arch. as project manager and lead architectural historian.

Acknowledgements

People that assisted with the formation of this report are Ms. Stephanie Nutt, historic archeologist; Dr. Richard Edging, FLW cultural resources manager; Dr. Larry Roberts, Engineer Center Historian;, and the many

helpful archivists at the National Archives in College Park, Maryland especially in the Still Pictures Room.

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Fort Leonard Wood, MO

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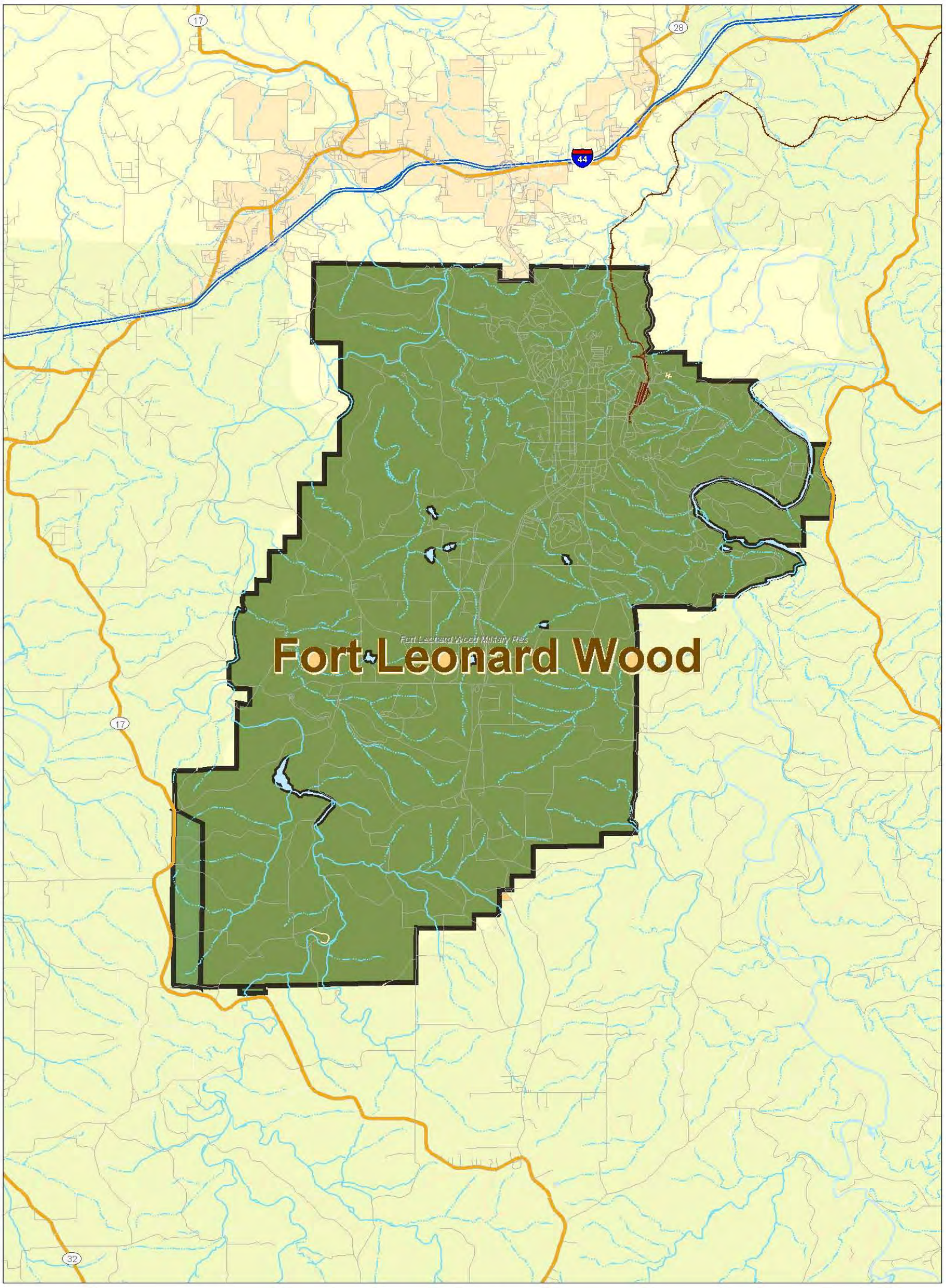

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Figure 1. FLW Installation Map, 2005 (FLW Directorate of Public Works).

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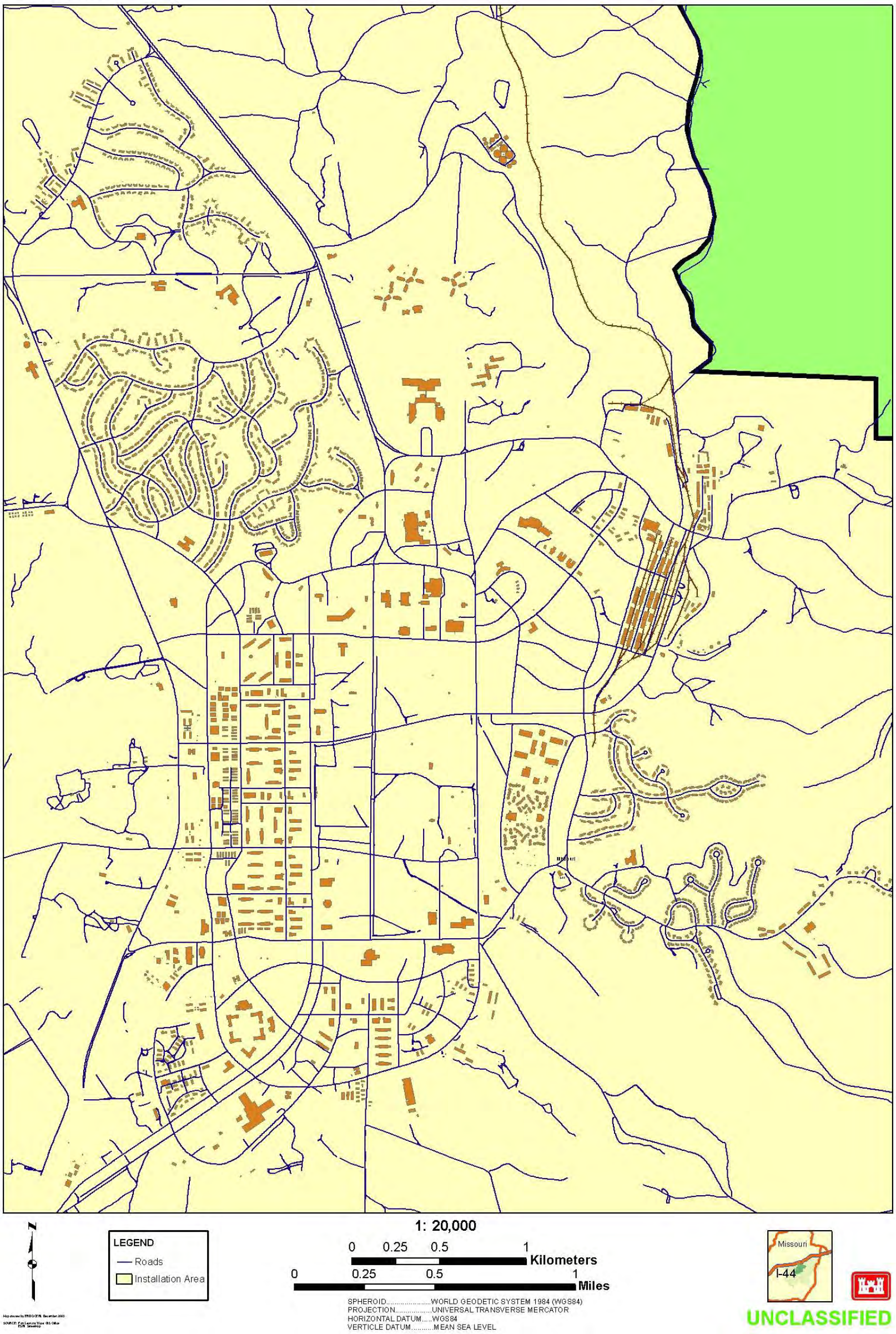

Figure 2. FLW, 2005 (FLW Directorate of Public Works).

2 Historic Context

Pre-military Landscape

Fort Leonard Wood land is located in Pulaski County, Missouri, in the heart of the northern Ozarks. Historically, prior to military occupation, the mountainous and heavily forested landscape of the Ozark Highlands was home to rugged and independent farmer-hunters who hunted the ample wild game and farmed the marginal agricultural soils. After farming the rich river bottoms and larger hollows, the uplands were used for timber, grazing, and agriculture (Figure 3). In the 1930s, poor agricultural practices on these uplands led to erosion and soil depletion throughout the area. In an attempt to restore the land, the Federal government purchased the eroded land and used the Civilian Conservation Corps (CCC) to replant trees and build recreation sites.[1] Eventually these lands became part of the Mark Twain National Forest, which borders the current installation on the east, south, and west (Figure 4). When the Army began to purchase the 67,757 acres needed for the construction of FLW, only around 800 people were displaced from the land.

Figure 3. A farmstead along the Big Piney River, date unknown (courtesy State Historical Society of Missouri, Columbia).

[1] Smith, Steven D., *A Historic Context Statement for a World War II Era Black Officers' Club at Fort Leonard Wood, Missouri*, (Champaign, IL: ERDC-CERL) 1998, Chapter IV.

Figure 4. Tourist Map of Pulaski County, 1937 (courtesy, USAES History Office, FLW).

WWII Landscape

Planning and construction of FLW began in December 1940. Layout and construction documents were prepared by Alvord, Burdick, and Howson Architect Engineers of Chicago, Illinois. Although heavy rainfall in December and January slowed construction, the installation was occupied a mere seven months later. The installation, containing 1,600 mobilization

style buildings, was designed for a maximum of 45,000 troops (Figures 5 and 6).

A landscape development report was written in April 1941 by Francis A Robinson, a site planner from the firm of Robinson and Parnham of Des Moines, Iowa, working under Alvord, Burdick, and Howson. This development plan included suggestions for improvement of the cantonment area after construction was completed. It served as an overall plan for the cantonment as a whole, to facilitate a unified approach to landscape design. The report contained planting plans for higher profile areas, barracks, and a discussion on the layout of each regiment.

Figure 5. Photograph of WWII mobilization style buildings, date unknown (courtesy State Historical Society of Missouri, Columbia).

In the fall of 1942, a Prisoners of War (POW) camp was built in the southwest corner of the cantonment across from the airfield to house 3,000 German and Italian prisoners. These POWs left an enduring impact on the landscape of FLW, building extensive stonework around the cantonment area. Between 1943 and 1945, over 250 German prisoners built drainage structures, retaining walls, sidewalks and parks, some of which still exists

today.[2] In 1998, the Cultural Resources Manager (CRM) and the Missouri State Historic Preservation Office (MSHPO) determined that all of the remaining stonework was eligible to the NRHP along with several important WWII era buildings. Stonework surrounds the following NRHP eligible buildings: the Post Headquarters, the Red Cross building, the Black Officers' Club, and Garlington House.[3]

After the war, the installation was put on standby in May 1947 and remained inactive until August 1950. During this time it was used only for summer National Guard training.

Cold War Landscape

FLW was reactivated on August 1, 1950 to address growing conflict with Korea. Although no new buildings were built, the site needed extensive repairs, and roads and training areas needed to be rebuilt.[4] In March of 1956, the 6th Armored Division was deactivated and the United States Army Training Center Engineer was activated at FLW. As a result, substantial funds were available at this time to replace the WWII temporary barracks. Construction of new permanent brick structures included major troop barracks, family housing, and support and recreational facilities.

The first permanent buildings constructed were Capehart family housing units. Between 1958 and 1961, 2,829 new housing units were built at FLW under the Capehart legislation.[5] Phase One of this massive effort was completed in 1960 and consisted of 1,329 units (Figure 7). The housing on the east side of the post was generally for commissioned officers and was known as Delafield Village and Piney Hills. Housing for non-commissioned officers (NCOs) was located northwest corner of the post, and called Leiber Heights, Palace Heights, Wildwood Village, Cedar Hills, and Rolling Heath Village. Phase Two built 700 units and was completed in 1962, and Phase Three of 800 units was completed in 1963.[6]

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[2] Harland Bartholomew & Associates, *Cantonment Historical Resources Survey, Fort Leonard Wood, Missouri* (Kansas City, MO: District Corps of Engineers, US Army) 1987, 13.

[3] Smith, Adam et al., Fort *Leonard Wood Building Survey 1941 to 1956* (Champaign, Il: ERDC-CERL) 2003.

[4] Harland Bartholomew & Associates, *Installation Building Survey* (Kansas City, MO: District Corps of Engineers, US Army) 1992, 11.

[5] Kuranda et al. *Housing an Army: The Wherry and Capehart Era Solutions to the Post War Family Housing Shortage (1949-1962)* 2003, A 5.1.

[6] Harland Bartholomew & Associates, *Installation Building Survey*, 1992, 11.

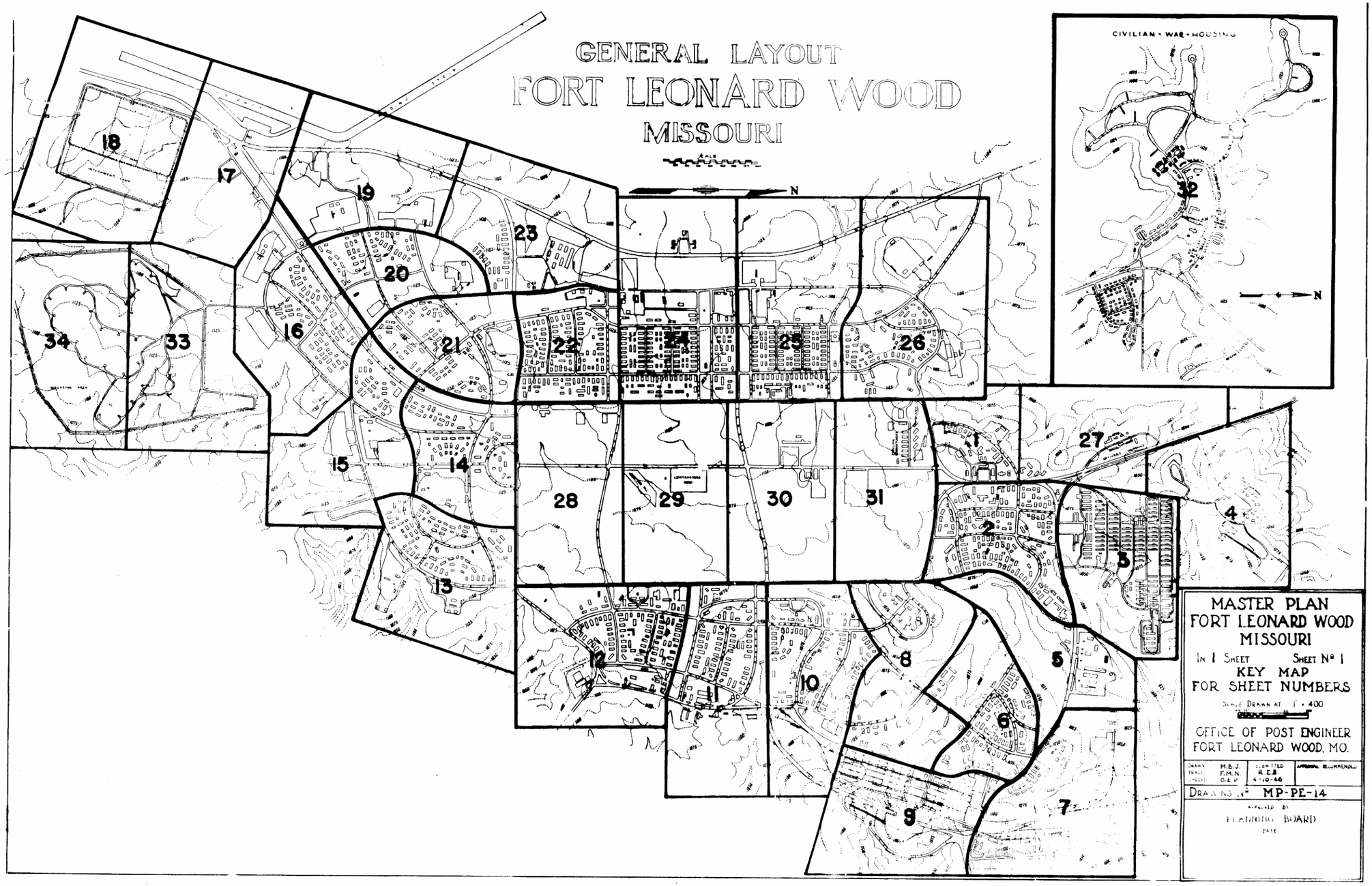

Figure 6. Master Plan for FLW, 10 April 1946 (FLW, Directorate of Public Works).

Figure 7. Photograph of a typical street in the newly constructed Capehart neighborhood at FLW (NARA College Park, RG 111-SC, photo 583480).

Construction of unaccompanied personnel housing (UPH) consisting of rolling pin barracks along with supporting buildings, classrooms, brigade headquarters, mess halls, chapels, and gymnasiums was begun in 1958 and lasted until 1968 (Figures 8 and 9). Other permanent construction during the 1960s and 1970s included community buildings such as a chapel and theater, motor pools, and a health center.

Figure 8. Aerial photograph of the 600 area north barracks at FLW (NARA College Park, RG 111-SC, photo 602 986).

Also around this time, a large beautification effort was attempted. Two reports, a *Landscape Planting and Maintenance Plan* and a *Land Management Plan* were initially competed in February 1957 and each revised several times until 1968. The goal of these plans was to improve the appearance of the post and create a pleasant environment to boost the morale of personnel. The design aimed to provide uniformity and economy of maintenance, and to permit continuity of development.[7] It was noted that any existing plantings were placed intermittently without benefit of design or funding, much of which was planted by troops aiming to improve their area or building, resulting in a lack of consistency, uniformity, simplicity of design, or economy of maintenance.[8]

Present Day Landscape

By the end of 1989, only 600 of the 1,000 WWII temporary buildings remained in the cantonment.[9] Today only, a few WWII temporary buildings

[7] US Army Engineer District, Kansas City, Missouri, *Landscape Planting and Maintenance Plan for Fort Leonard Wood, Missouri* (Kansas City, MO:Engineer District, US Army) 1968, 1.

[8] Ibid., 9.

[9] Harland Bartholomew & Associates, *Installation Building Survey*, 1992, 12.

remain scattered around the cantonment. However, the layout and land use and, for the most part, the roadways remain the same (Figure 10). The cantonment continues to grow as the Army Chemical and Military Police Schools were relocated to FLW in 1999-2000.

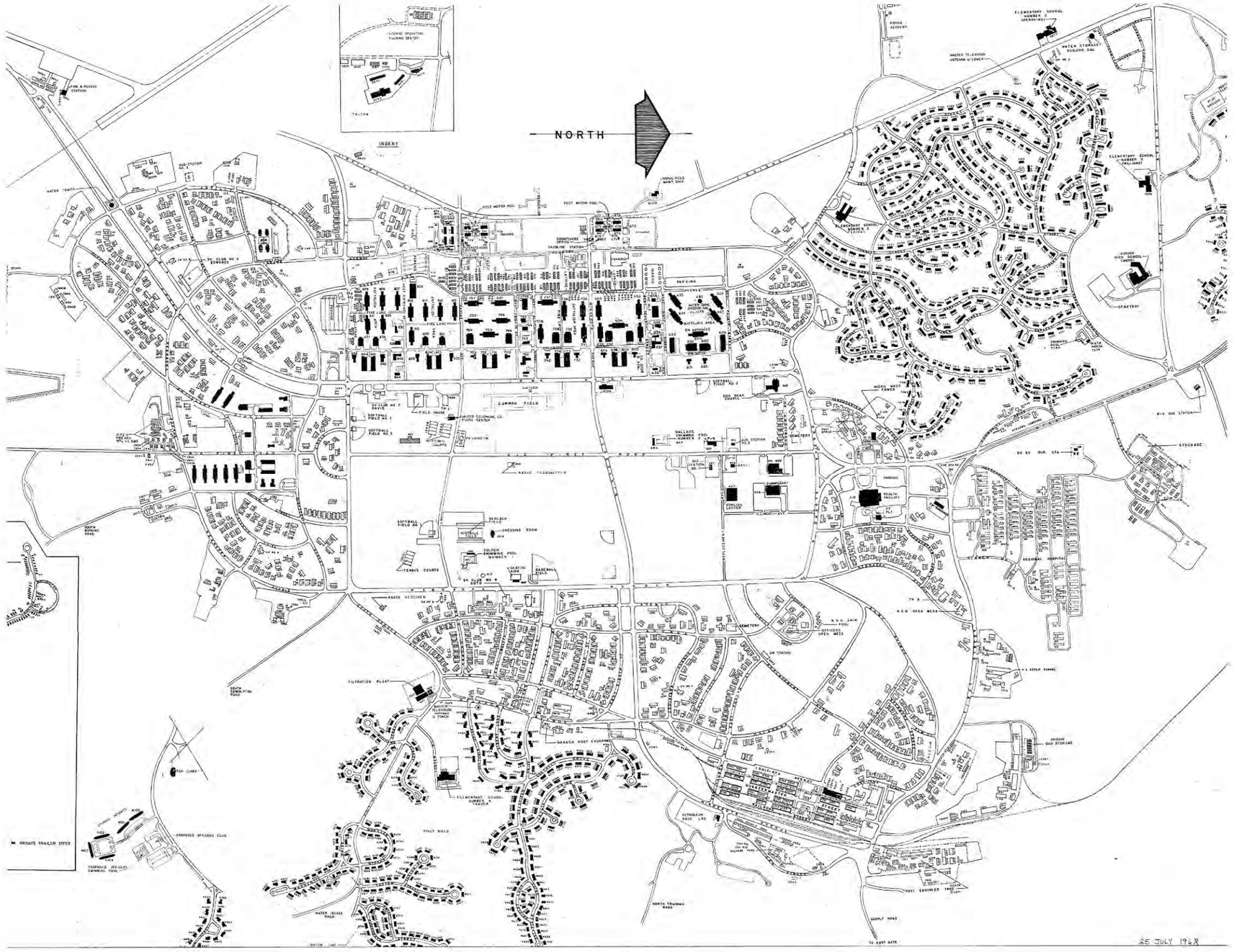

Figure 9. Map of FLW, 25 July 1968 (FLW, Directorate of Public Works).

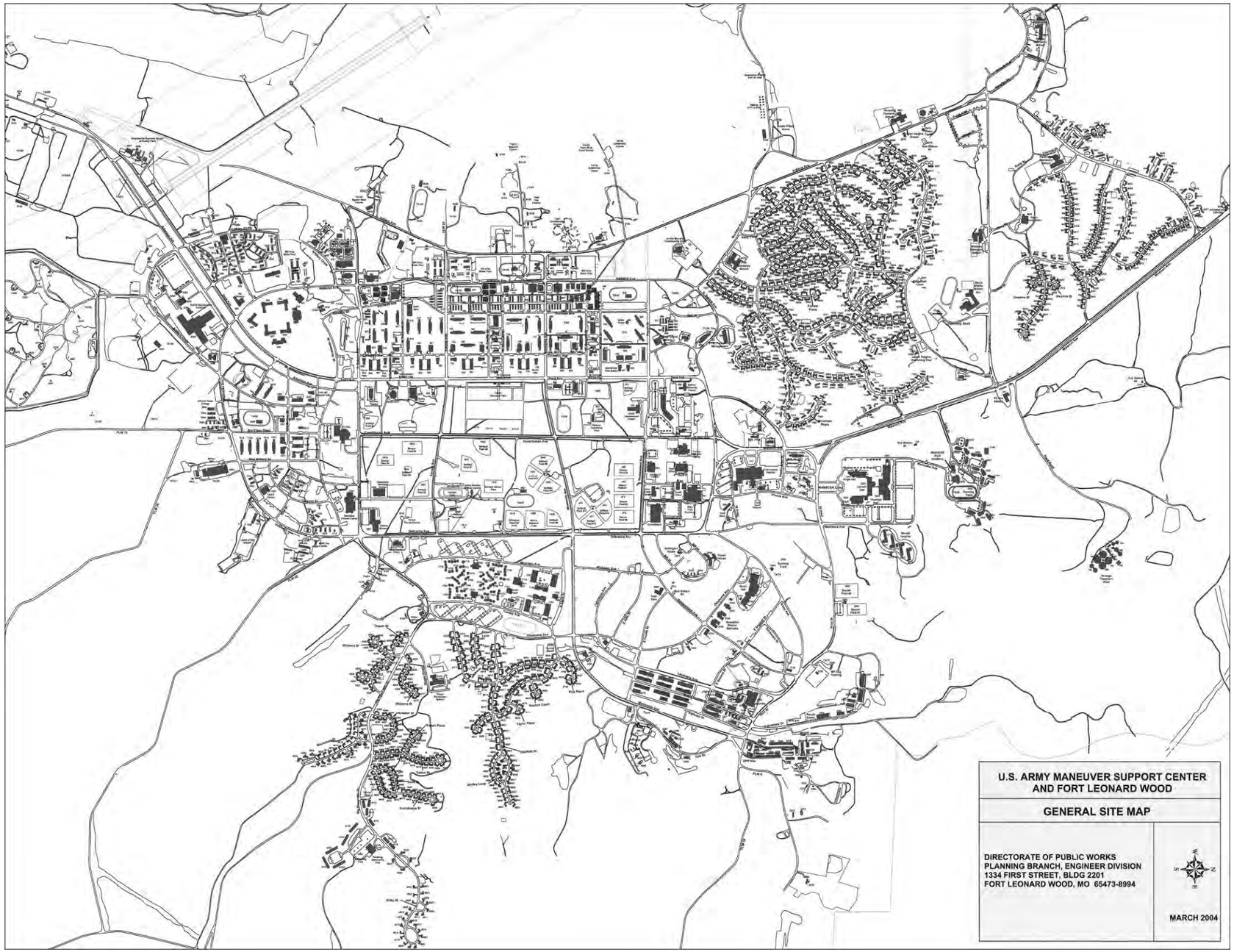

Figure 10. General Site Map, FLW cantonment, 2005 (FLW, Directorate of Public Works).

3 Identification of Landscape Characteristics

In landscape studies, the term "landscape characteristic" has a specific meaning. Landscape characteristics are the tangible evidence of the activities and habits of the people who occupied, developed, used, and shaped the land to serve human needs; they may reflect the beliefs, attitudes, traditions and values of these people.[10] Identifying the characteristics of the military landscape requires an understanding of the natural and cultural forces that have shaped it. This section will describe these processes and the resulting landscape features that together comprise the military landscape. The purpose of this section is to help FLW become sensitive to the overall landscape and how it affects decision making with regard to landscape planning on the ground.

Spatial Organization and Land use

The spatial organization of FLW is based on the relationship among land use, circulation networks, predominant landforms, and natural features and is reflected in the installation design and site plan.[11] The mission of the military drives the spatial organization of an installation and the way the military uses the land. Since the FLW site was selected due to the topographical advantages of the land for engineering and training, the low cost of land, and the plentiful supply of water, the relationship between the built environment and these resources had a large impact on the spatial layout of the main cantonment area.

FLW's cantonment is about six square miles, three miles north-south by two miles east-west. The cantonment was built around a large central parade ground 7,000 feet long and 3,500 feet wide, in the northeast corner of the installation. The main entrance to the cantonment is from the north, and the training lands mainly stretch to the south and west.

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[10] National Park Service, *National Register Bulletin #30: Guidelines for Documenting and Evaluating Rural Historic Landscapes* (Washington, DC: National Park Service) 1992, 3.

[11] Loechl, Suzanne Keith et al. *Guidelines for Documenting and Evaluating Historic Military Landscapes* (Champaign, IL; ERDC-CERL) Draft 1996, 43.

The cantonment was laid out in military units around the parade ground (Figure 11). The 6th Division was located to the west of the parade ground along Iowa Avenue.[12] The 72nd Field Artillery Brigade (National Guard) was located to the south of South Dakota Avenue and the parade ground, and the Engineer Replacement Training Center was located to the east.[13] To the north of the parade ground were the Post Headquarters, segregated troop areas, and the hospital. The Post Headquarters complex, a cluster of buildings on both sides of Missouri Avenue, occupied a commanding site overlooking the parade ground. The railroad, warehouse, and quartermaster areas were located east and north of the engineer replacement center at the intersection of Minnesota Avenue and First Street.

The land use areas established during the layout of the WWII camp are still consistent today. Barracks are located mainly to the east and west of the parade ground, and some to the south. The Post Headquarters, support services, a hospital, and a post exchange are all located to the north. Family housing is located farther to the north and also in the southeast corner of the cantonment. The parade ground still provides open space, recreation, and room to train (Figure 12).

[12] Robinson, Francis P. *Landscape Development Report, Fort Leonard Wood, Missouri* (Des Moines, IA: Robinson Parnham Landscape Architects) 1941, 2.

[13] Ibid.

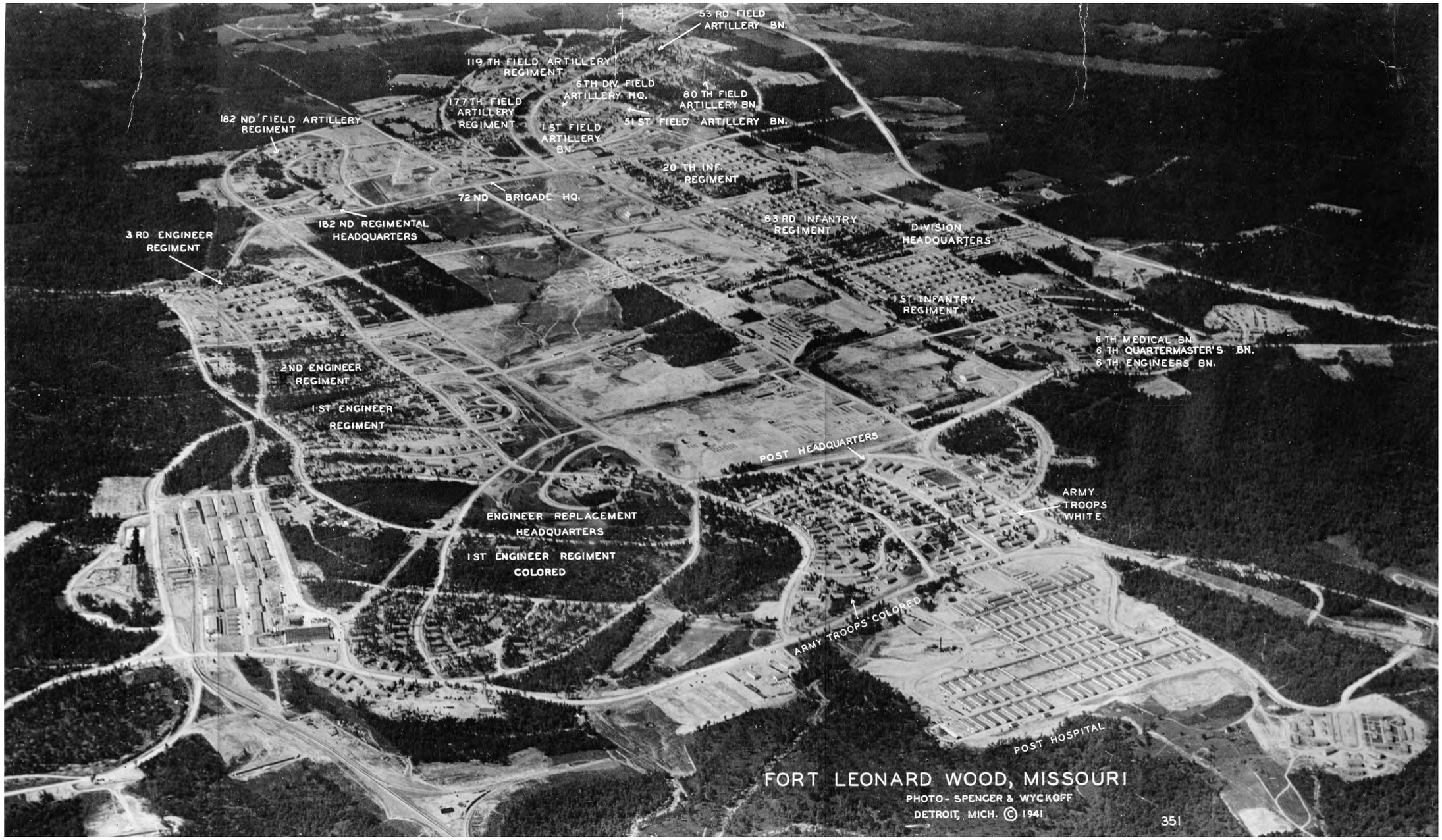

Figure 11. Aerial photograph of FLW, 1941 (FLW, Engineer Center History Office).

Figure 12. Daily calisthenics on the parade ground, 7 July 1954 (NARA College Park, RG 111-SC, box 284, photo 465 698).

Response to the Natural Environment

Major natural features such as mountains and rivers influenced the location and organization of military installations. FLW occupied 69,000 acres within the Gasconade River Basin. Situated between the Big Piney River on the east and the Roubidoux Creek on the west, the cantonment area lies in the upland plateau between these two rivers. The rolling hills of the Ozark Highland are covered with scrub oak and elm, while the ravines are covered in sycamores and hickory. The Big Piney River provides an excellent water supply as it fed by several large springs.[14]

The Ozark Highland landscape falls into three classes, the fertile bottomland, the rugged timberland with heavy topography between the bottomland and the plateau, and the plateau where the cantonment area is located. With the exception of the bottomland, the area is not very suited to agriculture as was found in the 1920s and 30s.

[14] Ibid, 4.

The built environment and landscape of the cantonment was arranged and modified to best fit the hilly terrain and climate. Roads were built along the topography, and buildings were arranged with their longest sides parallel to the slope to minimize the heights of footings and costly cut and fill.[15] This response to the landscape gives the installation a park-like feel, a feeling only bolstered by the wide-open space of the parade ground. The juxtaposition of the rigid, rectilinear military layout in response to the sweeping hills is unique to FLW.

In addition, the rainy spring climate directly affected the building of the POW stonework ditches, culverts, and drainage systems across the cantonment.

Military Cultural Traditions

Military cultural traditions are reflected on military installations in both organization and aesthetics.[16] Abstract values such as hierarchy, discipline, utility, and patriotism are physically manifested in the landscape to varying degrees giving military installations the appearance and sense of place that makes them easily recognizable.[17]

In the 1941 Landscape Development Plan, it was noted that "where possible, and where the nature of the terrain permitted, headquarters buildings and others of similar importance have been so arranged that emphasis has been given to their importance by the arrangement.[18]" While this is clearly seen in the location and layout of the Post Headquarters, which occupies a commanding site overlooking the parade ground and forms the center of a group around a court, it was also followed in the WWII-era headquarters buildings for the 6th Division, Engineer Replacement Center, and 72nd Field Artillery Brigade.[19]

Most military installations have a high level of similarity; basic components and designs are repeated within the installation and within the Army as a whole. The WWII camps and the Cold War barracks and motor pools are examples of the Army's use of standardized plans. In addition, uni-

[15] Ibid, 6.

[16] Loechl et al, 1996, 45.

[17] Ibid.

[18] Robinson, *Landscape Development Plan*, 1941, 7.

[19] Ibid.

formity is echoed in the setbacks and location of homes in the installation's family housing and neighborhoods. At FLW, the layout in response to the terrain and topography breaks up some of that uniformity.

Circulation Networks

Transportation networks on military installations are an important characteristic of military landscapes because the movement of troops and equipment is integral to the military mission. To facilitate efficient mobilization of troops and supplies, most transportation systems have a distinct hierarchy.[20] Primary and secondary roads are designed to carry the heaviest traffic and connect major land use areas, while smaller roads, service lanes, and cul-de-sacs provide access to other areas.

The layout of the buildings and roads at FLW was fitted to the terrain for economy of construction and ease of access to the building areas. Since the road locations were chosen based on maximum use of flat areas for buildings, the result was a curvilinear system of streets all meeting at a central road which circles the parade ground. Roadways that lead away from the cantonment to the training areas and ranges in all directions generally follow the old country road network, which formerly served the landowners and farmers in the area.[21]

The 1941 report noted that the road layout achieved "a natural and attractive appearance" at a minimum of cost.[22] For the most part, the intricate curvilinear WWII-era roadway system remains today (Figure 13). Large construction projects, such as rows of rolling pin barracks, modern barracks, and Building 1000 at the southern end of the parade ground, built during the Cold War era and present day have eliminated some of the tertiary roadways. In addition, the WWII firebreaks and associated circulation networks have been built over. Smith noted in his *Historic Context Statement for a World War II Era Black Officers' Club,* that a comparison of the WWII period and modern maps indicates only a few road changes from the original WWII layout and as a result, "the center of Fort Leonard Wood retains much of its WWII landscape" (Figure 14).[23]

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[20] Loechl et al., 1996, 46.

[21] Unknown, "The Construction of Fort Leonard Wood" (Fort Leonard Wood, MO: On File, Cultural Resources Office), 34.

[22] Robinson *Landscape Development Report*, 1941, 6.

[23] Smith, *A Historic Context Statement for a World War II Era Black Officers' Club,* 1998, Chapter IV.

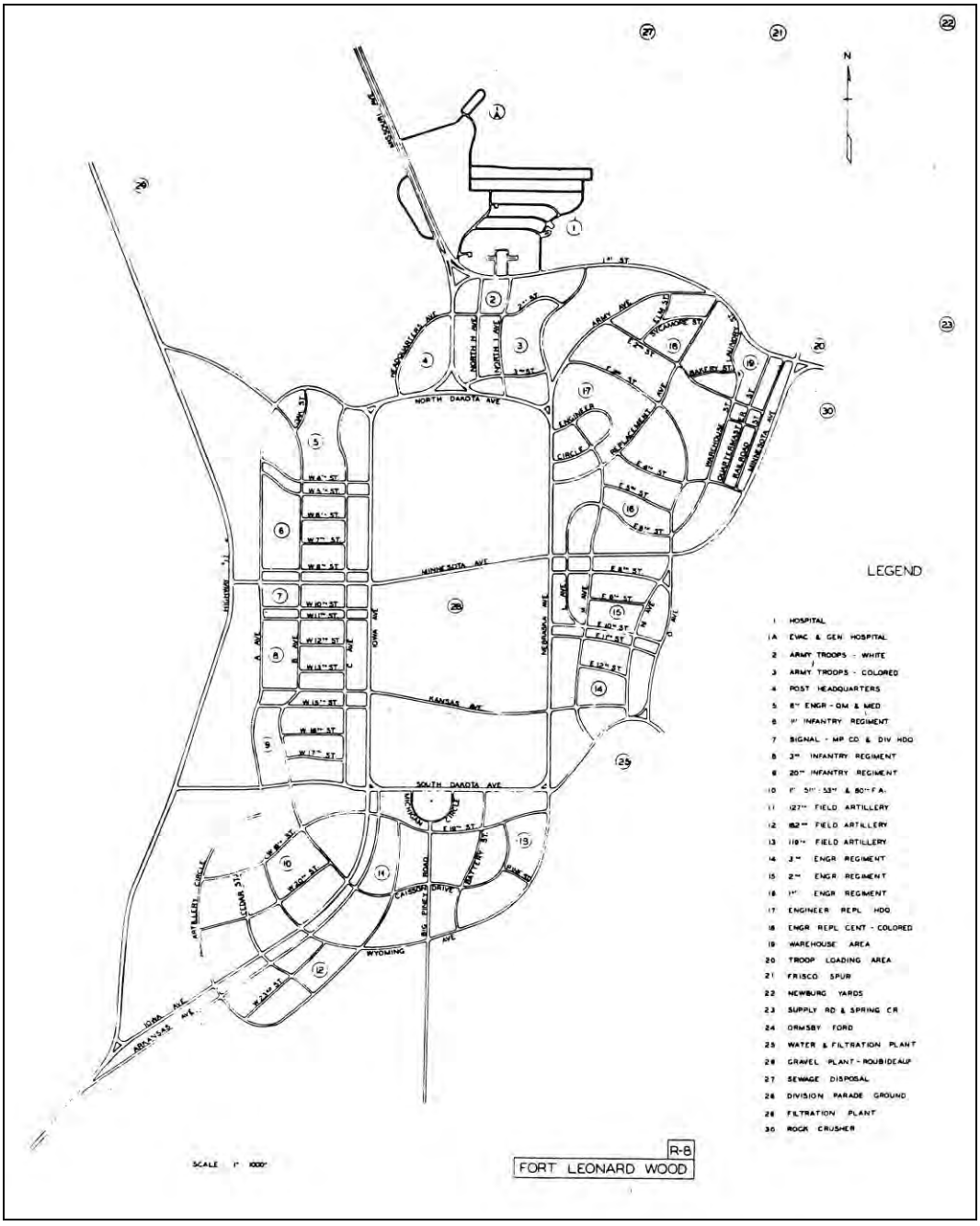

Figure 13. Map of roadways, 1941 (Robinson, *Landscape Development Plan*, 1941).

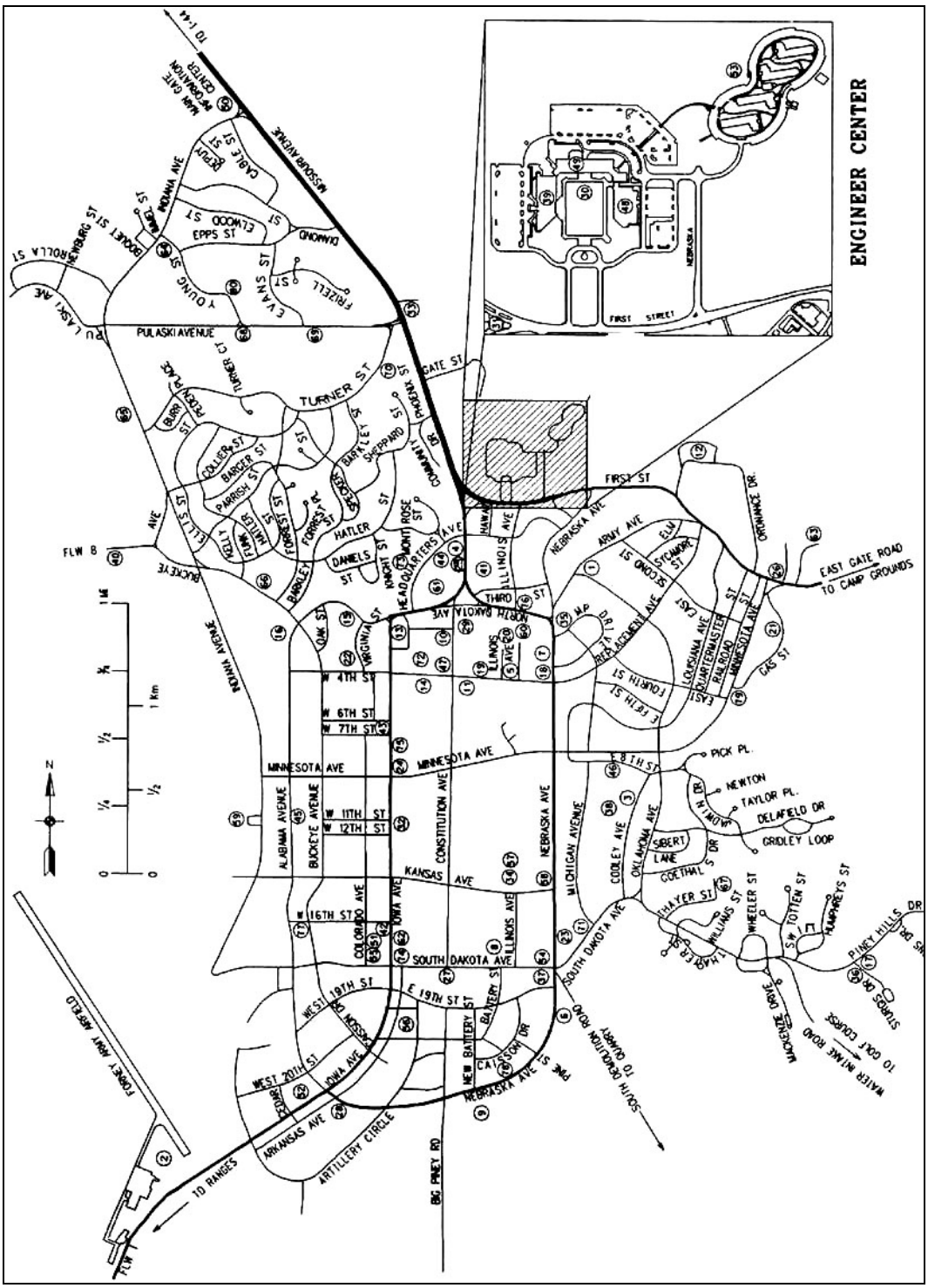

Figure 14. Map of current roadways, 2006 (FLW website).

The Frisco railroad spur (St. Louis to San Francisco) from Bundy Junction, near Newburg to FLW ends at the warehouse, quartermaster, and post ordnance area in the northeastern corner of the cantonment (Figure 15). In 1940-1, engineers cut down hills, filled in valleys, and uprooted trees to

get the spur the twenty-six miles over rough Ozark mountain terrain to FLW at a high cost of 3.3 million dollars.[24] The government-constructed and -owned spur was maintained under contract with the St. Louis San Francisco Railway company.[25] FLW engineers added another 1.6 miles of tract to add additional side trackage along the warehouse and shop area during the winter of 1942-3.[26]

The post airfield, Forney Army Airfield, while part of the overall circulation network of FLW, is outside the cantonment and not covered in this study. The airfield began taking commercial flights in 1961. The name of this airport was changed in 1998 from FLW Forney Army Airfield to Waynesville Regional Airport at Forney Field. The Forney Field mission is to provide aviation support to the U. S. Army Maneuver Support Center and the FLW community under a joint use agreement with the City of Waynesville.

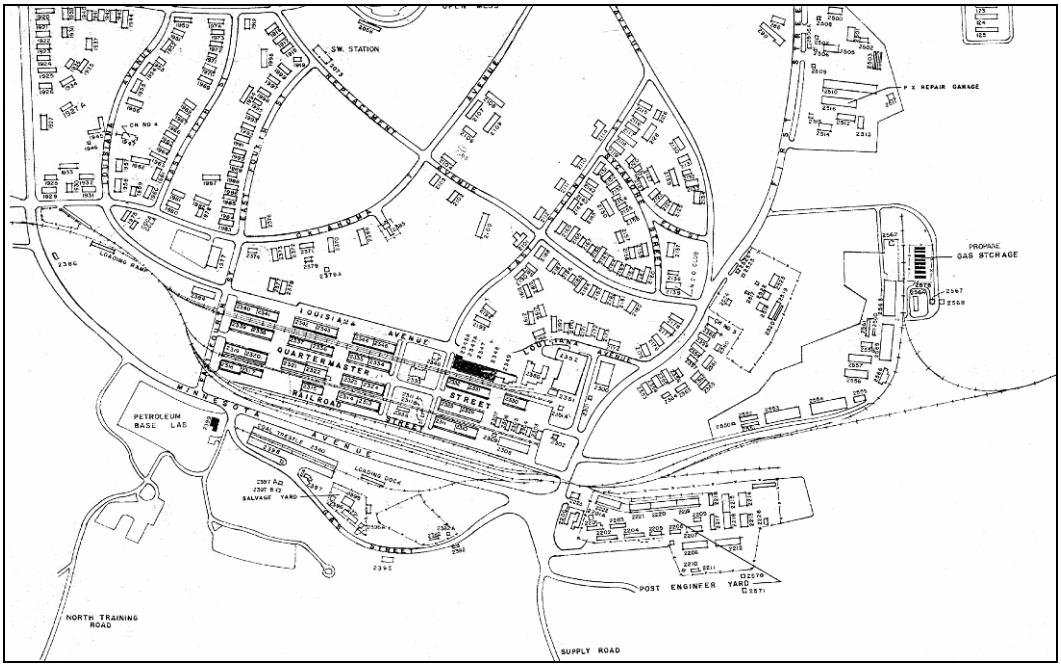

Figure 15. Map of railroad, warehouse, and quartermaster area, 1968 (courtesy, USAES History Office, FLW).

[24] Unknown, "The Construction of Fort Leonard Wood", 35.

[25] Ibid., 34.

[26] Ibid.

Clusters, Buildings and Structures

Clusters are groupings of buildings and structures, often similar in style, that function as a cohesive unit; for example a cluster of barracks, residential quarters, or administration buildings. Clusters are usually designed to create a symbiotic relationship with the exteriors and interiors relating to one another in some way.[27] The footprints of buildings, their masses, the spaces in between the buildings, and the circulation between buildings are integral to understanding the landscape.

During the WWII era, FLW buildings were primarily 700-series mobilization type construction. By the end of 1941, 1,600 WWII temporary buildings had been erected at FLW. Only a handful of these buildings remain. These include buildings in the warehouse, quartermaster, and maintenance facility area in the northeastern corner of the cantonment (Figures 16 and 17), a cluster in the southwestern corner used by the Missouri National Guard (Figure 18), the WWII Temporary Historic District and museum (Figure 19), and a few single significant buildings around the parade ground including the Old Post Headquarters, the Old Red Cross Building, Garlington House, the Nutter Field house, and the Black Officers' Club.

[27] Loechl, et al. 1996, 46.

Figure 16. Railroad track and warehouse area in northeastern corner of the cantonment (ERDC-CERL, 2005).

Figure 17. WWII-era laundry and steam buildings in warehouse area (ERDC-CERL, 2005).

Figure 18. WWII temporary buildings used by the Missouri National Guard located in the southwestern corner of cantonment (ERDC-CERL, 2005).

Figure 19. WWII temporary buildings in historic district and museum (ERDC-CERL, 2005).

Also in 1941, the Federal Public Housing Authority, under the Lanham Act, began construction on 750 family housing units located a few miles northwest of the cantonment (Figure 20). These units were for civilian war housing and some for NCOs. Most of these units were prefabricated, demountable theater of operations type construction although some were semi-permanent and a few permanent (Figure 21). None of these buildings remain today although the roads and the Pence School do remain.

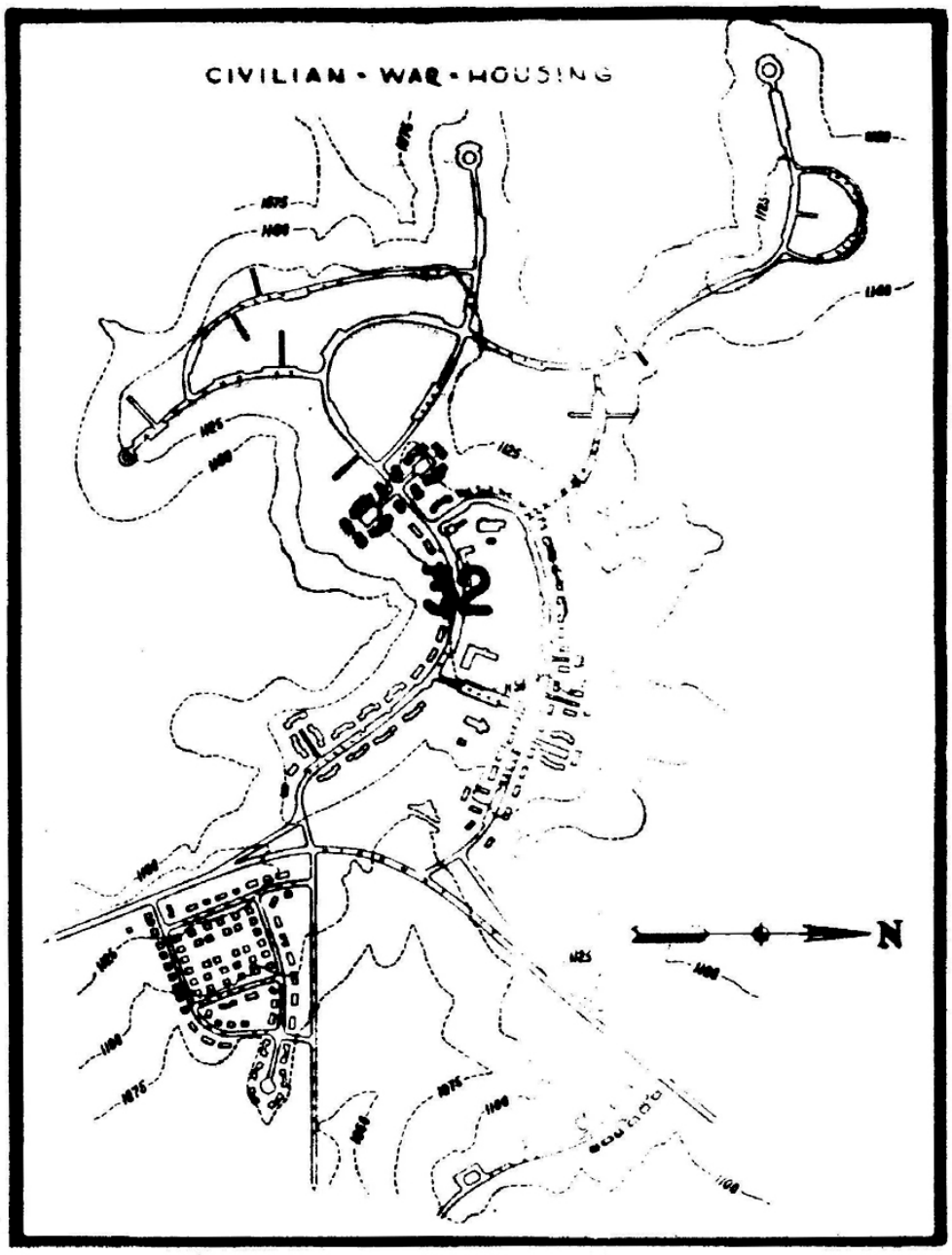

Figure 20. Map of civilian war housing area in northwest corner of cantonment, 1946 (FLW, Directorate of Public Works).

Figure 21. WWII-era housing at FLW, date unknown (NARA College Park, RG 111-SC).

In 1957, construction began on thirty-three officers' houses under the Military Construction Army (MCA) program. This construction was located in the southeast corner of the cantonment and was later called Piney Hills (Figure 22). The Capehart Program neighborhoods were constructed based on suburban planning principles with wide curving streets, long blocks, cul-de-sacs, and large front yards (Figure 23). At FLW, the curvilinear street patterns evolved from the natural topography of a site. These neighborhoods are located north of the parade ground and old Post Headquarters and in the southeast corner of the cantonment. In these neighborhoods, homes were set equidistant from the road and from each other based on site planning instructions from the War Department (1947) and the Army Corps of Engineers (1959).[28] The strict adherence to setbacks and distances between buildings gives the neighborhoods a strong uniform appearance, also very characteristic of the military.

[28] Kuranda et al., *Housing an Army*, 2003, 5-21.

Figure 22. A typical street of enlisted or officers housing at FLW, 3 October 1961 (NARA College Park, RG 111-SC, box 368, photo 588424).

From 1945 to 1950, Congress authorized the construction of 83,000 new permanent barracks spaces for the Army, based on claims the WWII temporary barracks were deteriorating and constituted a hazard.[29] At the same time, the Department of Defense (DoD) was encouraging standardization in UPH designs. In the 1960s, rolling pin barracks dominated barracks construction. The rolling pin barracks were designed in response to Congressional price ceilings for barracks construction.[30] By separating barracks and support services such as dining and administration, more money was available for each barracks building. Rolling pin barracks were the first Cold War era barracks that separated support functions in barracks design.

Rolling pin barracks were generally constructed in clusters of five buildings. Two mess halls, two administration buildings, and two supply buildings were built to support each cluster. A regiment area was composed of ten rolling pin barracks or two clusters. The new complexes also contained

[29] Kuranda et al, *Unaccompanied Personnel Housing (UPH) During the Cold War (1946-1989)*, Aberdeen Proving Ground, MD; U.S. Army Environmental Center, December 2003, 3-23.

[30] Ibid, 3-30.

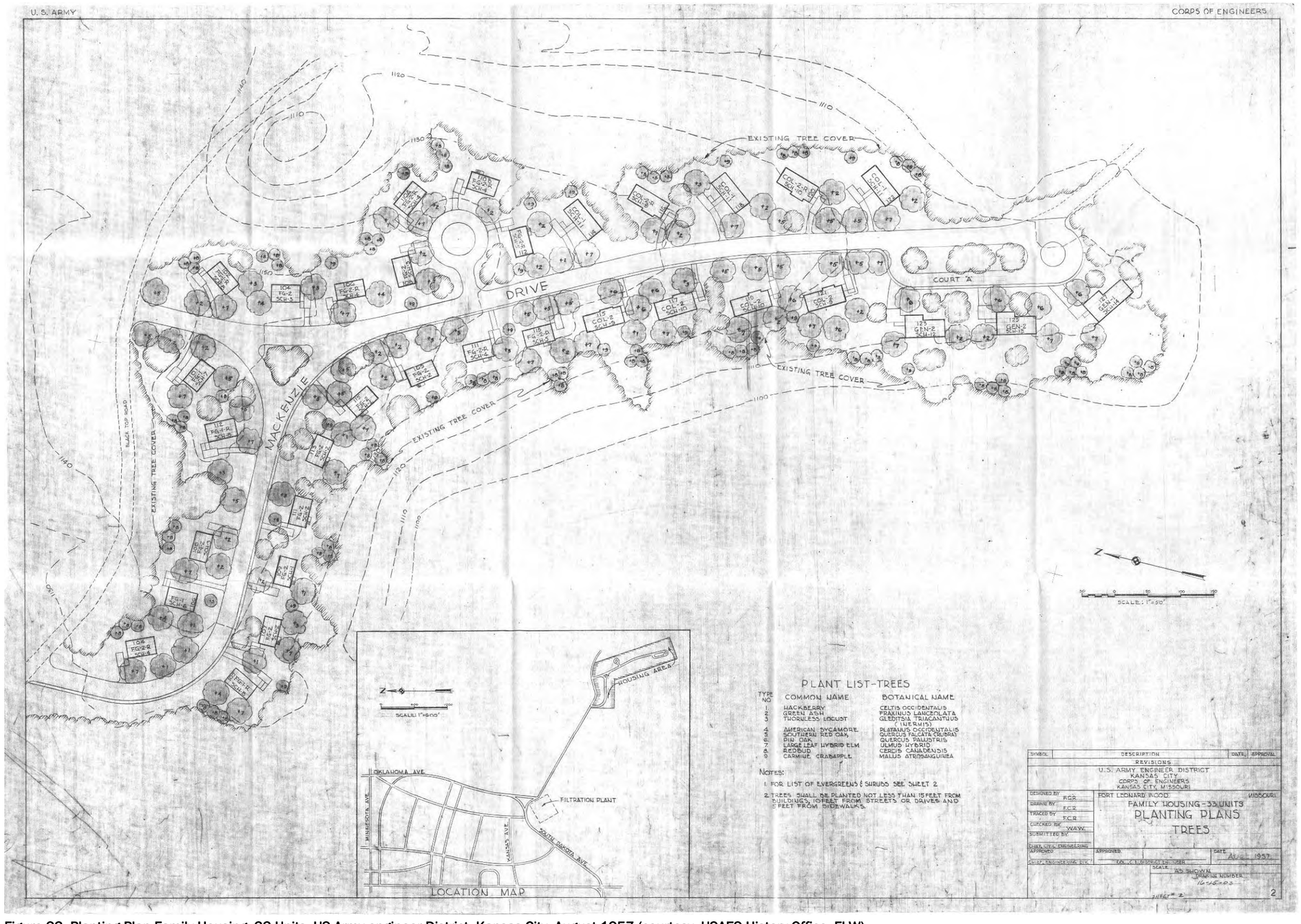

Figure 23. Planting Plan Family Housing, 33 Units, US Army engineer District, Kansas City, August 1957 (courtesy, USAES History Office, FLW).

additional support buildings including chapels, dispensaries, and NCO clubs, rendering them self-contained units.[31] At FLW, seven and a half of these clusters were built; six along the west edge of the parade ground and one and a half to the south. All of these remain today. A 2007 report finds the 600 Block of rolling pin barracks and associated administration buildings are NR eligible as a district.[32]

Vegetation

Vegetation is a characteristic of the landscape that bears a direct relationship to long-established patterns of land use.[33] For example, residential neighborhoods are often the most heavily planted areas on military installations while other areas are often left open for various military activities. Patterns of vegetation may delineate boundaries, land use areas, and natural areas such as streams or ravines.

Native vegetation in the area of FLW is primarily oak-hickory forest, with concentrations of pine in the upland areas of the installation and sycamore, elm, and soft maple in the lowlands. Since most native vegetation was cleared to build the cantonment, the remaining native vegetation is found mostly in stream beds and in open space around the periphery of the cantonment area since open areas in the cantonment were actively used for light training (PT), recreation, or as parade grounds.

The 1941 Landscape Development Plan included designs for most areas with tree and foundation planting suggestions (Figures 24 through 27). Layout plans were prepared for each military unit on the post showing the location of all structures, streets, and parking areas. In addition, the plan gave suggestions for the location of drill and recreation locations, listing possibilities such as firebreaks areas, the parade ground, and west of B and A Avenues. It mentions that the development goal of the post is to preserve the park-like character, situated as it is in a national forest. It goes as far as to mention using signs, guardrails on roads, and parking areas of a design suited to a naturalistic setting, and recommends one check the National Park Service for guidance.[34] The informal character of the natural growth

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[31] Ibid., 3-23.

[32] Smith, Adam et al., *FLW Rolling Pin Barracks and Associated Buildings Context and Inventory* (Champaign, IL: ERDC-CERL) 2007.

[33] Loechl et al., 1996, 46.

[34] Robinson, 1941, 13.

should be preserved and further developed with careful attention to the preservation of desirable trees and undergrowth to further develop the forest growth to add attractiveness and make living conditions more pleasant.[35]

As FLW became a permanent installation, another report titled Landscape Planting and Maintenance Plan was written, although it was revised multiple times with the last revisions in 1968.[36] This report, echoing the 1941 development plan, stresses that any future plantings should be informal in nature. It was noted in the report that formal designs required excessive maintenance and tend to accent the regimental character of a military post.[37] It also noted that landscaping in the cantonment was to be limited to community facilities, the post exchange, theaters, bachelor officers' quarters (BOQ), barracks, hospitals, chapels, family quarters, administrative, school and research buildings, and other areas such as main entrances, and areas adjacent to athletic facilities and parks.[38] Not to receive any attention were the warehouse area, industrial areas, and WWII temporary buildings slated for removal within ten years.

The report advises that "a military reservation with its many functions and facilities, group living and intensive training, and greater mechanization, calls for compensatory green spaces. These green spaces in the forms of lawns, ground covers, trees, and shrubs will provide variety in environment and improvement in community spirit and troop morale resulting from the improved appearance of the post".[39] The report discusses correcting existing plantings, largely shrubs, which were planted intermittently over a period of years, without benefit of landscape plan or funds, resulting in a lack of "consistency of arrangement or relation of one area to another for overall appearance, simplicity of design or economy of maintenance".[40] It suggests that future plantings be arranged informally and in accordance with the design criteria in the report based on "unity of design and composition and simplicity of layout and maintenance".[41]

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35 Robinson, 1941, 11.

36 US Army Engineer District, Kansas City, MO, *Landscape, Planting and Maintenance Plan,* 1968.

37 Ibid, 15.

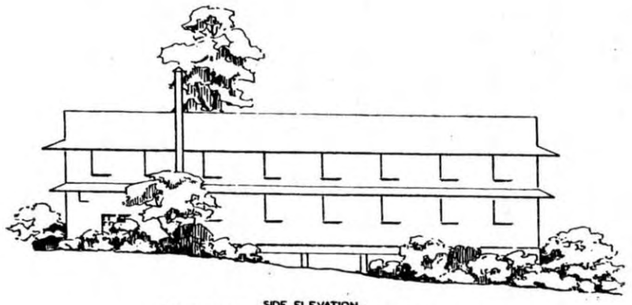
38 Ibid, 2.

39 Ibid, 12.

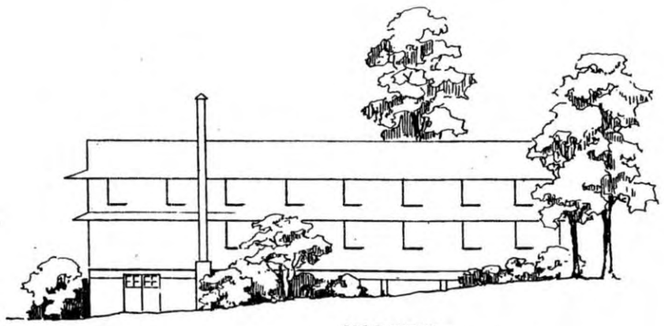
40 Ibid, 9.

41 Ibid, 13-14.

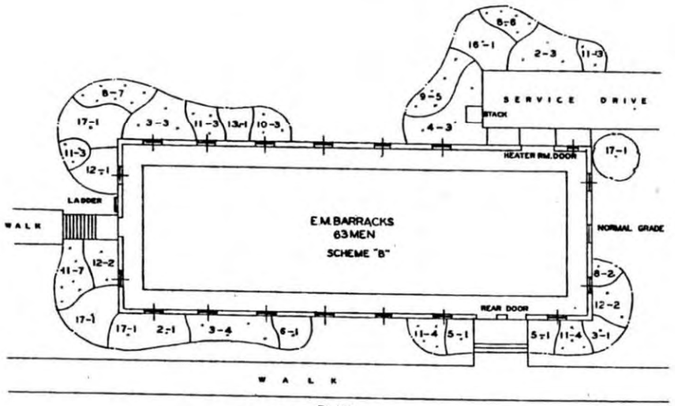
The vegetation around the cantonment today is informal for the most part, with the appearance of naturalized clusters of vegetation around the parade ground and open areas around the cantonment. Foundation plantings are minimal and consist of mainly evergreen shrubs that accent the entrances and corners of buildings. Both planting plans from 1941 and 1968, gave good suggestions for a variety of plant material and design.



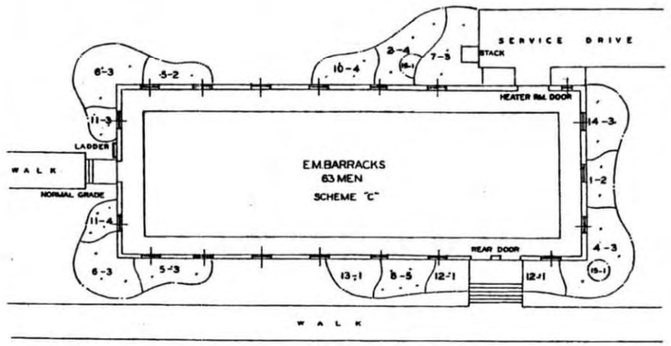
SIDE ELEVATION
SHOWING HEATER ROOM DOOR AT FIRST FLOOR LEVEL



SIDE ELEVATION
SHOWING HEATER ROOM DOOR BELOW FIRST FLOOR LEVEL



PLAN
WITH REAR DOOR AT NORMAL GRADE
1ST NUMBER REFERS TO KIND OF PLANT
2ND NUMBER INDICATES QUANTITY



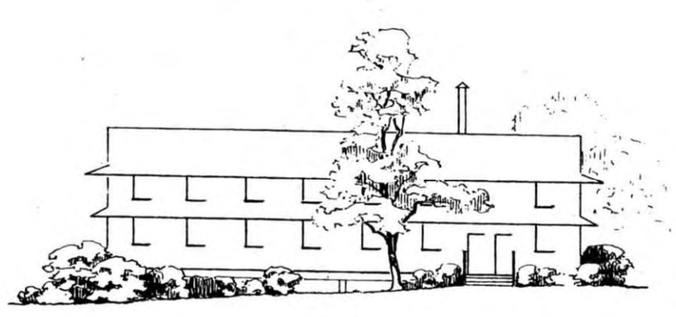
PLAN
WITH REAR DOOR ABOVE GRADE
1ST NUMBER REFERS TO KIND OF PLANT
2 ND NUMBER INDICATES QUANTITY

PLANTING KEY

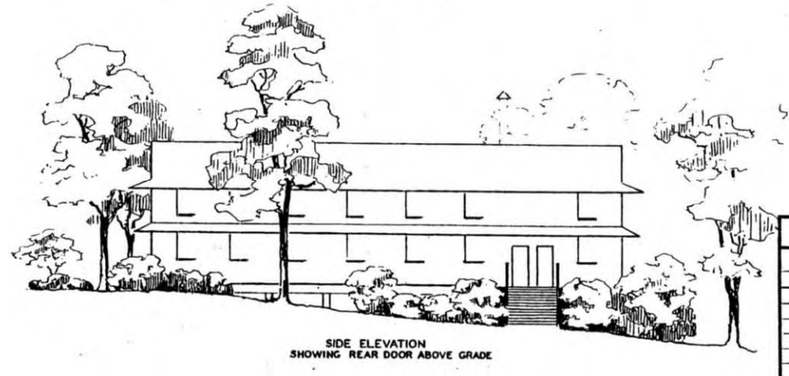
KEY NO.	SCIENTIFIC NAME	COMMON NAME
	SHRUBS	
1	CALYCANTHUS FLORIDUS	SWEETSHRUB
2	CORNUS PANICULATA	GRAY DOGWOOD
3	CYDONIA JAPONICA	FLOWERING QUINCE
4	EUONYMUS ATROPURPUREA	WAHOO
5	LIGUSTRUM IBOTA REGELIANUM	REGEL PRIVET
6	PHYSOCARPUS OPULIFOLIUS	NINEBARK
7	RHAMNUS CATHARTICA	BUCKTHORN
8	RHUS CANADENSIS	FRAGRANT SUMAC
9	RIBES ALPINUM	MOUNTAIN CURRANT
10	RIBES AUREUM	SLENDER GOLDEN CURRANT
11	SYMPHORICARPOS VULGARIS	CORALBERRY
12	VIBURNUM LENTAGO	NANNYBERRY
13	VIBURNUM OPULUS	CRANBERRY BUSH
14	VIBURNUM PRUNIFOLIUM	BLACKHAW
	SMALL TREES	
15	AMELANCHIER CANADENSIS	DOWNY SHADBLOW
16	CERCIS CANADENSIS	REDBUD
17	CORNUS FLORIDA	FLOWERING DOGWOOD

SEE LANDSCAPE DEVELOPMENT
PLANS FOR TREE LOCATIONS

SCHEME "A" SEE L-600
SCHEME "B" SHOWING REAR DOOR AT NORMAL GRADE
SCHEME "C" SHOWING REAR DOOR ABOVE GRADE



SIDE ELEVATION
SHOWING REAR DOOR AT NORMAL GRADE



SIDE ELEVATION
SHOWING REAR DOOR ABOVE GRADE

L-600.1

ALVORD, BURDICK & HOWSON, ARCHITECT-ENGINEER

SCALE 1"= 10'

REVISIONS

CONSTRUCTION DIVISION
OFFICE OF THE QUARTERMASTER GENERAL
FORT LEONARD WOOD, MO.

DETAILED PLANTING PLAN
E.M. BARRACKS

DRAWN BY CET | CHECKED BY | APPROVED BY DIRECTION | DATE 5-14-41
TRACED BY | APPROVED BY | PLAN NUMBER L-600.1

Figure 24. Detail Planting Plan for E.M Barracks, Alvord, Burdick, Howson, 14 March 1941 (Robinson, 1941).

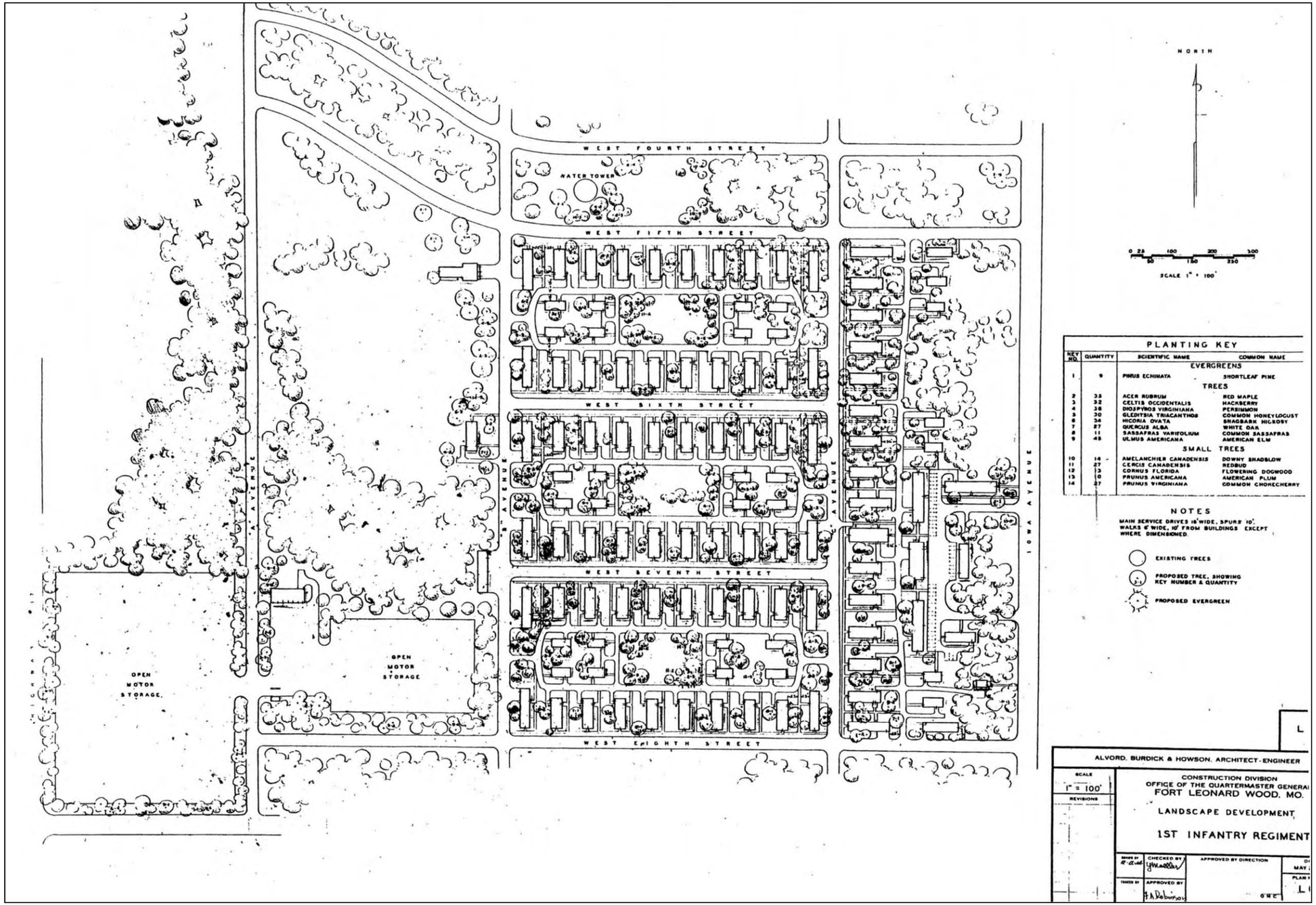


Figure 25. Landscape Development, 1st Infantry Regiment, Alvord, Burdick and Howson, May 1941 (Robinson, 1941).

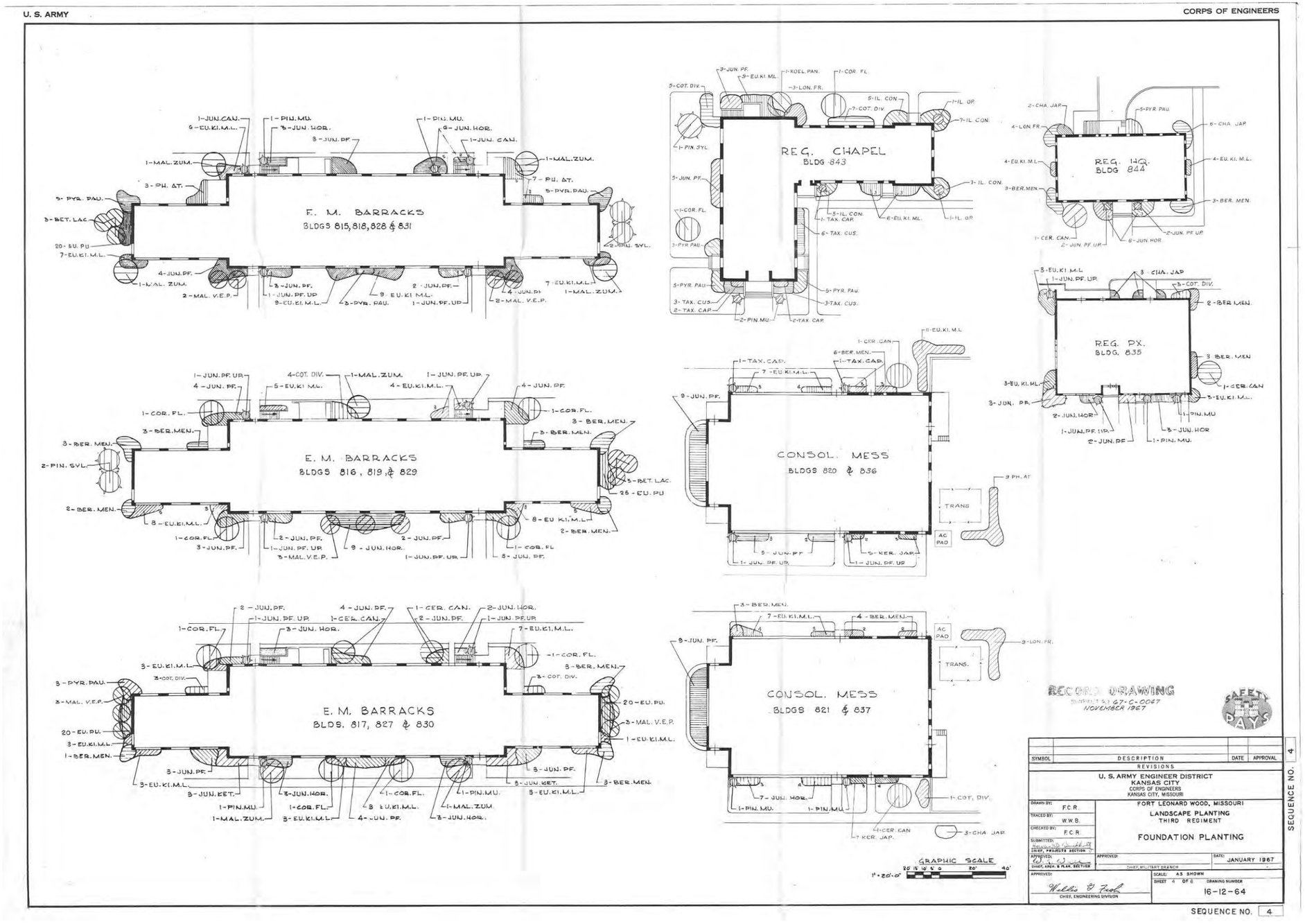


Figure 26. Landscape Planting, Third Regiment, Army Engineer District, Kansas City, January 1967 (courtesy, USAES History Office, FLW).

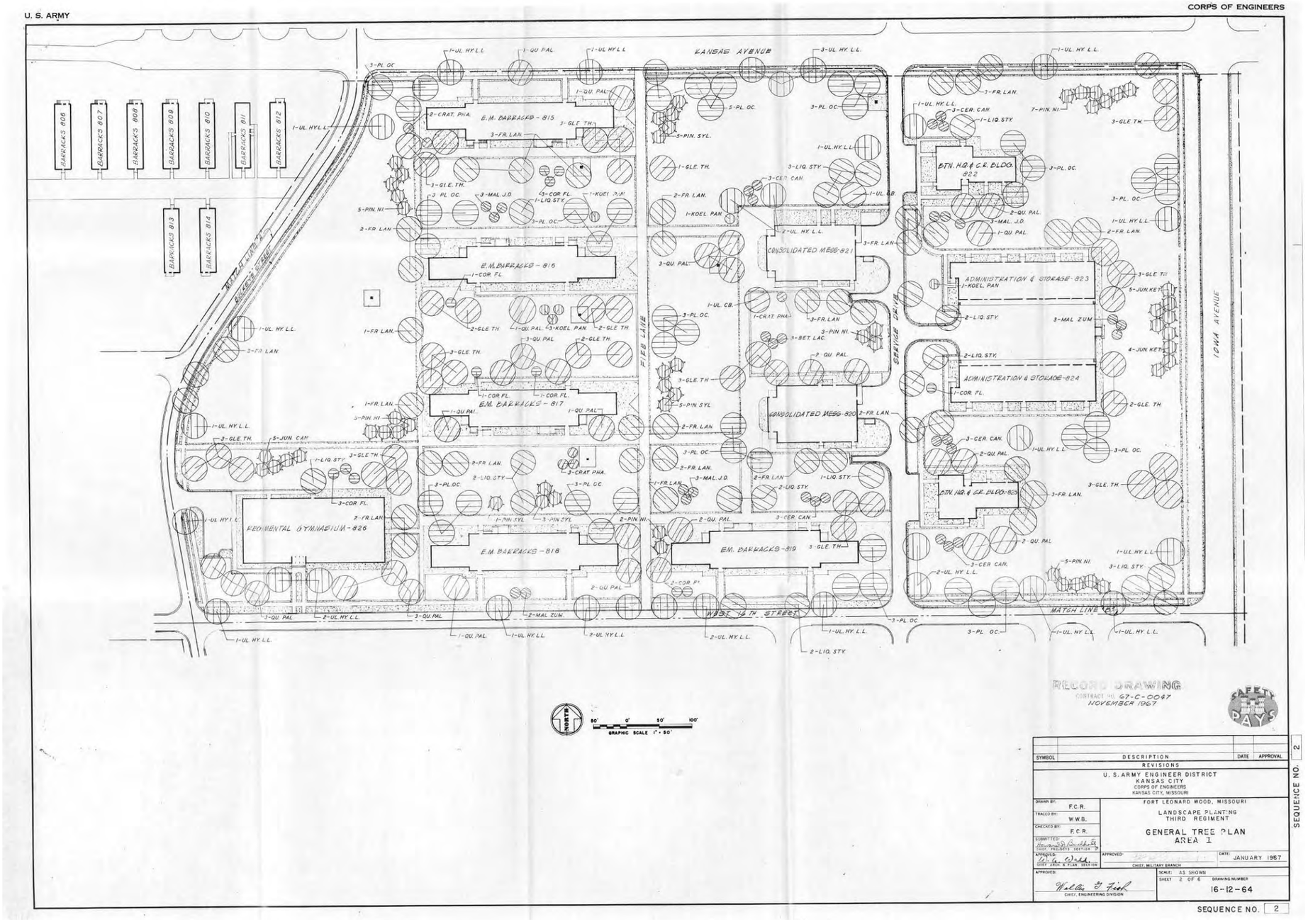


Figure 27. General Tree Plan, Area 1, Third Regiment, Army Engineer District, Kansas City, January 1967 (courtesy, USAES History Office, FLW).

4 Evaluation

Previous studies have found eligible several WWII architectural resources and most of the POW stonework, but the landscapes around these buildings, connecting the stonework, and throughout the cantonment have not been evaluated[42]. The purpose for this report is to determine the NRHP eligibility status for the cantonment landscape as a whole and any significant component landscapes.

The NRHP Criterion for Evaluation describes how properties/districts are significant for their association with important events or persons (Criteria A and B), for their importance in design or construction (Criterion C), or for their information potential (Criterion D). The following is a brief description of each of the four Criterions (excerpted from *National Register Bulletin #15: How to Apply the National Register Criteria for Evaluation):*

A. Event--associated with events that have made a significant contribution to the broad patterns of our history; or

B. Person--associated with the lives of persons significant in our past; or

C. Design/Construction--embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. Information Potential--yielded, or is likely to yield, information important in prehistory or history.

Historic properties either retain integrity (this is, convey their significance) or they do not. Within the concept of integrity, the National Register criteria recognizes seven aspects or qualities that, in various combinations, define integrity.

To retain historic integrity a property will always possess several, and usually most, of the aspects. The retention of specific aspects of integrity is paramount for a property to convey its significance. Determining which of these

[42] Smith, et al., *Fort Leonard Wood Building Survey 1941 to 1956*, 2003; Harland Bartholomew & Assoc., *Cantonment Historical Resources Survey*, 1987; Smith, Adam et al., *Fort Leonard Wood German POW Stonework Context and Survey* (Champaign, IL: ERDC-CERL) 2006.

aspects are most important to a particular property requires knowing why, where, and when the property is significant."[43]

The seven aspects of integrity as outlined in National Register Bulletin #15, read as follows:

Location

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

Design

Design is the combination of elements that create the form, plan, space, structure, and style of a property. It results from conscious decisions made during the original conception and planning of a property (or its significant alteration) and applies to activities as diverse as community planning, engineering, architecture, and landscape architecture. Design includes such elements as organization of space, proportion, scale, technology, ornamentation, and materials.

Setting

Setting is the physical environment of a historic property. Setting refers to the character of the place in which the property played its historical role. It involves how, not just where, the property is situated and its relationship to surrounding features and open space.

Materials

Materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form an historic property.

Workmanship

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

Feeling

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

Association

Association is the direct link between an important historic event or person and an historic property.

[43] National Register of Historic Places, *National Register Bulletin #15, How to Apply the National Register Criteria for Evaluation* (Washington, DC: National Park Service) 1991.

Findings

The landscape characteristics section in the previous chapter addresses the landscape of the cantonment in its entirety. While the roadway system, the layout and land use of FLW retains much of its WWII integrity, this report finds that, as a whole, the FLW cantonment area does not possess enough historic significance and integrity to make it eligible for the NRHP as a site or historic district. However, several individual landscape component areas within the cantonment have the significance and integrity to be individually eligible. These sites, further discussed below, are integral to the overall history of FLW and its unique layout in direct response to the natural landscape and the mission of a WWII mobilization camp. In addition, these sites help to illustrate the historic context in this report and possess some or all of the National Register's seven aspects of integrity (location, design, workmanship, association, feeling, setting, and materials).

The eligible component landscapes discussed in further detail in Chapters 5-8 include:

- Veterans Park
- The WWII Temporary Historic District
- Gammon Field
- The Red Cross Building/Old Headquarters

Veterans Park is significant under Criterion C; vernacular stonework design by German POWs. The WWII Temporary Historic District and the Old Headquarters and Old Red Cross Buildings are significant under Criterion A and C as remnants of WWII Mobilization Camps. Gammon Field is significant under Criterion A for Cold War training and education in support of the Engineer Training Center and School mission.

The Capehart housing areas and associated landscapes have been determined eligible under a nationwide program comment.[44] The Rolling Pin barracks were determined eligible by a Cold War UPH program comment.[45] It has also

[44] Advisory Council on Historic Preservation, *Program Comment for Capehart and Wherry Era Army Family Housing and Associated Structures and Landscape Features (1949-1962) (*Washington, DC: Federal Register, Vol. 67, No. 110) June 7, 2002, 39332-39335.

[45] Advisory Council on Historic Preservation, *Program Comment for Cold War Era Unaccompanied Personnel Housing (1946-1974)*, 2006.

been determined that the 600 Block of barracks and administration buildings were found eligible as a historic district.[46] Since these areas have been already determined significant and documented, they will not be discussed further in this report.

While several other WWII temporary buildings remain, either their associated landscape does not retain integrity or the landscape on its own is not significant. For example, while Nutter Field House remains in its original location and setting on the periphery of the parade ground, the landscape is not significant. In the case of the Black Officers' Club, the structure, the painted mural above the fireplace, and the associated stonework have already been determined significant. It was determined that there is not another characteristic of the landscape that has integrity or adds to what has already been determined.

In addition, there are two clusters of WWII temporary structures that do remain intact, the warehouse and quartermaster area and a grouping of buildings used by the Missouri National Guard in the southwestern corner of the cantonment. These structures still retain some of their integrity for setting, feeling, and location; however, they were not determined significant on a national scale, since similar clusters exist across the military.

[46] Smith, et al., FLW *Rolling Pin Barracks and Associated Buildings Context and Inventory*, 2007.

5 Veterans Park

History

Veterans Park is located on a triangular piece of land formed by the intersection of North Dakota Avenue and Missouri Avenue. The park, adjacent to the Health Center, is at the entrance to the cantonment and the parade ground (Figure 28). The park contains elaborate POW stonework paths, seating areas, a bridge, and a drainage ditch and is considered to be some of the most significant stonework on the installation.

Figure 28. A low oblique photograph showing Veterans Park and construction on the new Health Center, October 1962 (NARA College Park, RG111-SC, photo 602 982).

A 1941 plan for the Post Headquarters drawn by Alvord Burdick and Howson, shows a planting plan for Veterans Park (see Figure 29). The site was close in proximity to the headquarters complex and is mostly likely why a planting plan was completed. This planting plan documents existence of the park prior to the POW stonework. In the 1941 design, the small flowering trees are lo-

cated on the three corners, to draw in interest and large shade trees form a backdrop behind them to show off their color. It is assumed this planting plan was never completed since it would have interfered with the stonework completion.

The POW stonework was begun in 1945, a date inscribed in the stonework on the pedestrian bridge. The paths and bridge were laid out in a very formal pattern reinforcing the triangular form of the site. Entrances to the park were laid out to the north and south creating a strong central axis. To the east and west, a series of smaller paths lead to benches and monuments. There is a seating area and retaining wall to the north.

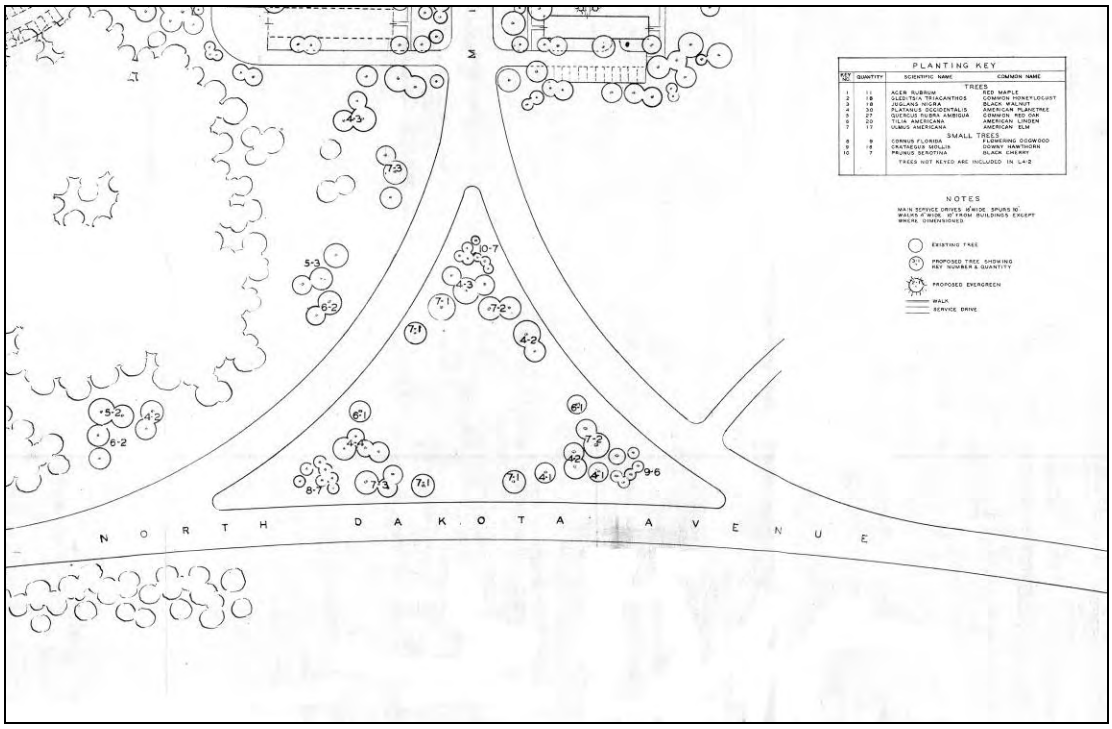


Figure 29. 1941 planting plan for Veterans park which accompanied Alvord, Burdick and Howson plans for Post Headquarters (courtesy, USAES History Office, FLW).

Figure 30. Looking south through Veterans Park, 1987 (Installation Building Survey).

Figure 31. Looking north at Veterans Park, 1987 (Installation Building Survey).

Figure 32. Photograph looking north at Veterans Park (ERDC-CERL, 2005).

Figure 33. Veterans Park looking northwest at retaining wall, bench, and volunteer tree (ERDC-CERL, 2005).

Figure 34. Looking south through Veterans Park (ERDC-CERL, 2005).

Significance and Integrity

The quality and amount of the stonework combined with the key location of the park contributes to the heritage of FLW. Veterans Park is a significant part of the POW stonework on FLW and history of POWs across the country.

The current condition and weedy vegetation affects the integrity of the site (Figures 30-35). The stonework is in need of maintenance. Vegetation within the stonework needs to be removed and some of the stonework needs to be repaired. A large volunteer tree whose roots are destroying the seating area and retaining wall at the north of the park needs to be removed immediately before more damage occurs. Other weedy vegetation throughout the site needs to be removed. The entire site needs landscaping.

Character Defining Features

The character defining features of Veterans Park are the POW stonework, the benches, the bridge, the seating area and retaining wall, the stone stairs, the

mature pine trees, the formal circulation pattern of paths, and the monuments memorials.

Existing Conditions

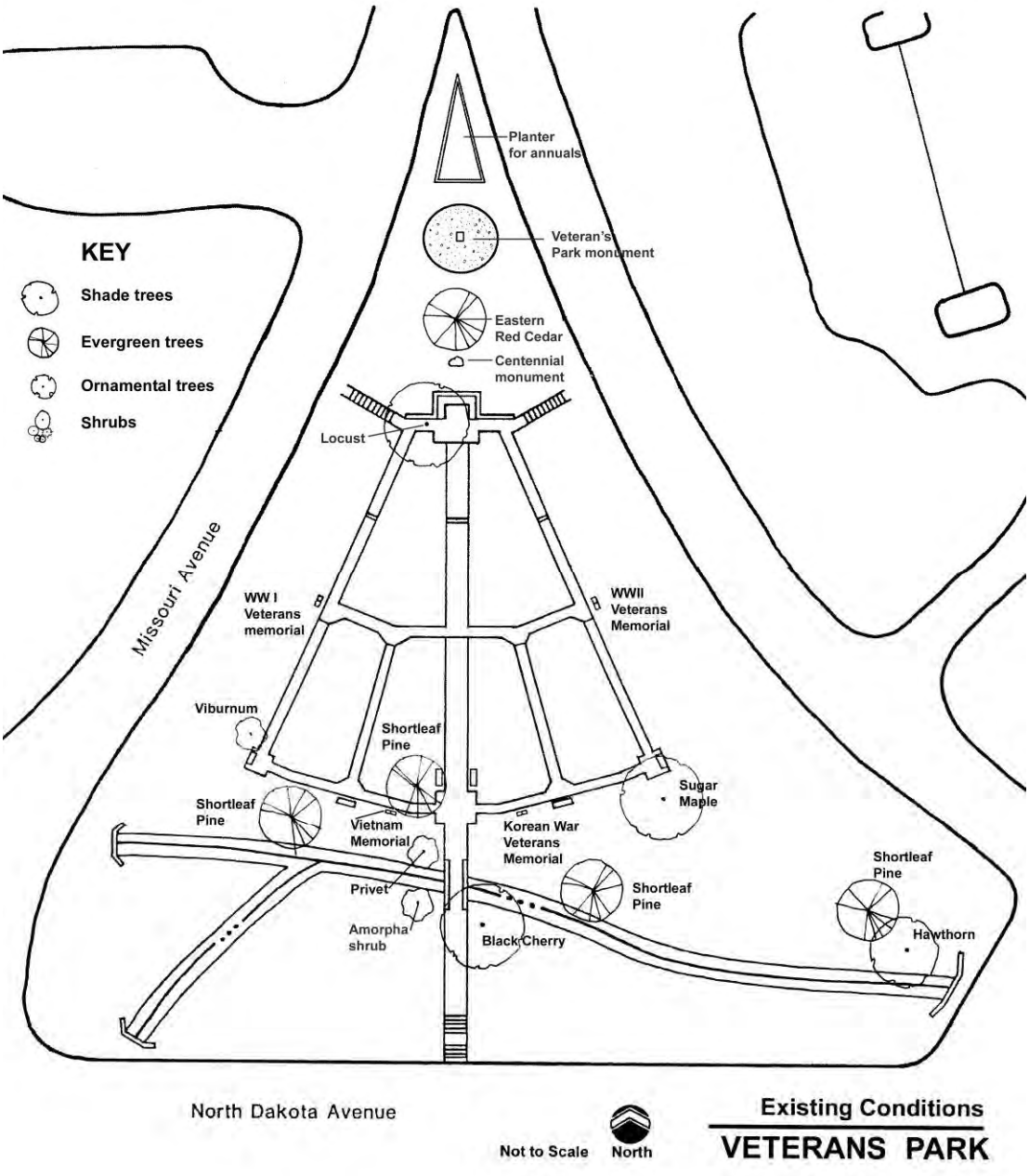


Figure 35. Veterans Park existing conditions (ERDC-CERL, 2005).

Recommendations

The location of the park at the entrance to the cantonment is a focal point of the installation. At this time, the park is underutilized and in need of landscaping and stonework repair. The park needs shade, more visible places to sit, and easy pedestrian access. Future enhancement should consider encouraging hospital patrons to use the site.

The following are recommendations for the Veterans Park:

- Repair, replace, and restore the POW stonework. All of the steps are in need of repair and are potentially dangerous. In addition, remove vegetation and weeds from the stonework. This stonework serves as the character (backbone) of the park and holds its significance.
- Replace weedy vegetation with a more complex planting plan including evergreens, large shade trees, and small ornamental trees with year-round interest. The following existing trees and shrubs need to be removed because they are damaged, weak, leggy, and not fitting for a formal park setting: the large locust tree causing damage to the stonework, the Black Cherry tree adjacent to the bridge, the hawthorn tree in the southeast corner, and the Amorpha and privet shrubs near the bridge.
- Use shrubs and smaller vegetation to accent the monuments with care not to plant too close to avoid maintenance problems in the future.
- Recommend replacing railroad tie planter at north end of park with something more attractive, possibly a lower stone planting bed. A stone bed should be compatible with, but not replicating, the POW stonework already on the site. Use this bed to draw focus to the park and to highlight the stone monument at the top.
- One style and type of bench should be consistent throughout the park.
- Consider adding signage to attract park users and entice visitors. In addition, add visible crosswalks to increase safety and to attract visitors.
- Consider adding trash receptacles to the site, best located on the hospital side near a crosswalk.
- It is important that new vegetation does not create maintenance problems with the stonework in the future. Consider planting shade trees in center areas away from paths and use ornamentals on perimeter for interest.
- One tree in the park, the Sugar Maple, is a memorial tree. Consider promoting this as a way to fund landscape improvements, increase visibility of the park, and generate interest and use.

The following proposed planting plan (Figure 36) for the park focuses on providing seating areas both in shade and sun and in areas both open and some more intimate. In addition, ornamental trees were added in focal areas at ma-

jor intersections, along the roadways, and at entrances to increase visibility of the park. Plantings allow for views both in and out of the park from the adjacent roadways. Shrubs were used to accent the memorials, entrances, steps, the bridge and enclose some seating areas. Tree locations were selected away from stonework to minimize potential damage in the future.

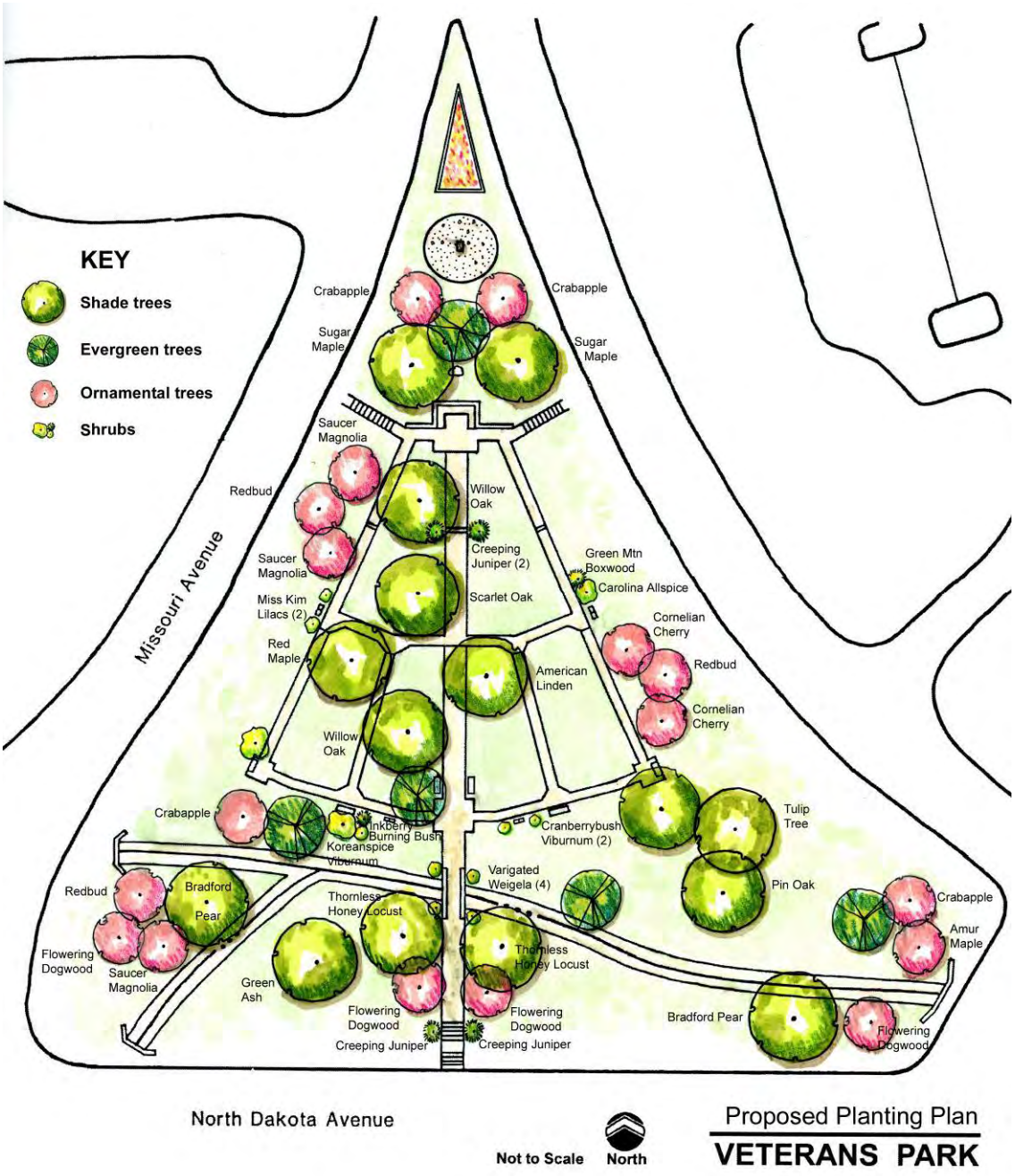


Figure 36. Veterans Park proposed planting plan (ERDC-CERL, 2005).

6 WWII Temporary Building Historic District

History

The WWII Temporary Building Historic District is a complex of thirteen structures now used as a museum. The museum complex is located in the southeast corner of the cantonment within the 1300 block area and enclosed by Caisson Drive, East 19th Street, Pine Street, and Nebraska Avenue (Figure 37). According to the 1941 landscape development report, the WWII Temporary Building Historic District site was originally laid out for the 182nd Field Artillery Regiment.[47]

According to changes in property cards, the museum was established in the early 1980s.[48] Of the thirteen buildings, eleven were original to the location. The other two, the regimental commander's quarters and the chapel were moved to the site in 1989 and 1999, respectively.[49] Historically, a chapel was located in the southwest corner of the lot, where some steps and stonework remains. It was decided to add the chapel adjacent to the existing buildings instead of in its historic location to create a more cohesive cluster. In addition, the site contains two mess halls, four barracks, three recreation buildings, and two storehouse/administration buildings (Figures 38 and 39). All buildings are 700-series temporary structures. Recently, three memorial parks, a parking lot, and tank displays were added to the museum complex (Figure 40).

[47] Robinson, 1941, 2.

[48] Smith, et al., *Fort Leonard Wood Building Survey, 1941-1956*, 2003, 1-64.

[49] Ibid.

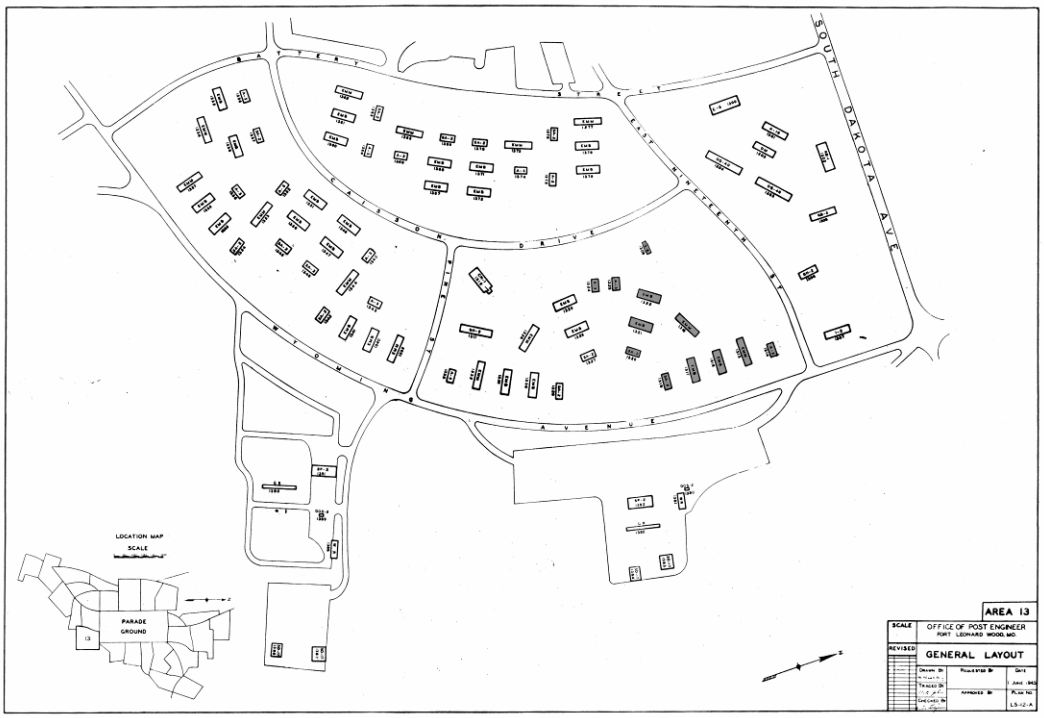


Figure 37. Plan for the "General Layout of Area 13, Office of the Post Engineer, June 1945". Shaded buildings remain today (FLW, Directorate of Public Works).

Figure 38. Photograph showing the formal military layout of some of the buildings (ERDC-CERL, 2005).

Figure 39. Photograph showing WWII temporary buildings built parallel to the contours (ERDC-CERL, 2005).

Figure 40. View of historic district from new memorial parks (ERDC-CERL, 2005).

Significance and Integrity

The WWII Temporary Historic District is significant not only because it preserves a piece of the WWII landscape and built environment, but because it illustrates the built environment in response to the rolling terrain that is so unique to FLW. The layout contains a row of buildings in a typical military rectilinear manner, and then behind is a row of buildings parallel to the contours to minimize grading and costly foundations which occurred all over the cantonment.

The vegetation on the site is a mix of native oaks along areas of topography and a mix of mostly evergreens planted along the foundations of buildings most likely by Soldiers (Figure 41). The current condition of the historic district is good (Figure 42). The recently constructed memorial parks adjacent to the historic district is a compatible land use, enhances the area, and preserves the open space. The memorial parks, the parking lot, tanks displays and their associated features were concurred with the MSHPO prior to their construction. The chapel, which was moved to the site in 1999, has continued use by the MP brigade. Buildings in the historic district were recently re-roofed and painted in compliance with maintenance manuals.[50]

[50] Smith et al., Fort Leonard Wood Maintenance and Repair Manuals for Buildings: 1309, 1310, 1314, 1315, 1316, 1317, 1318, 1319, 1320, 1321, 1322, 1323, 1324 (Champaign, IL: ERDC-CERL) August 2004.

Figure 41. Evergreens planted along the buildings (ERDC-CERL, 2005).

Character defining features

The character defining features of the WWII Temporary Building Historic District are the curvilinear streets, the rolling topography, the layout of the WWII buildings, the vegetation, the rectilinear sidewalks connecting the buildings, and the historic lighting.

Compatible features

Signage, adjacent memorial parks.

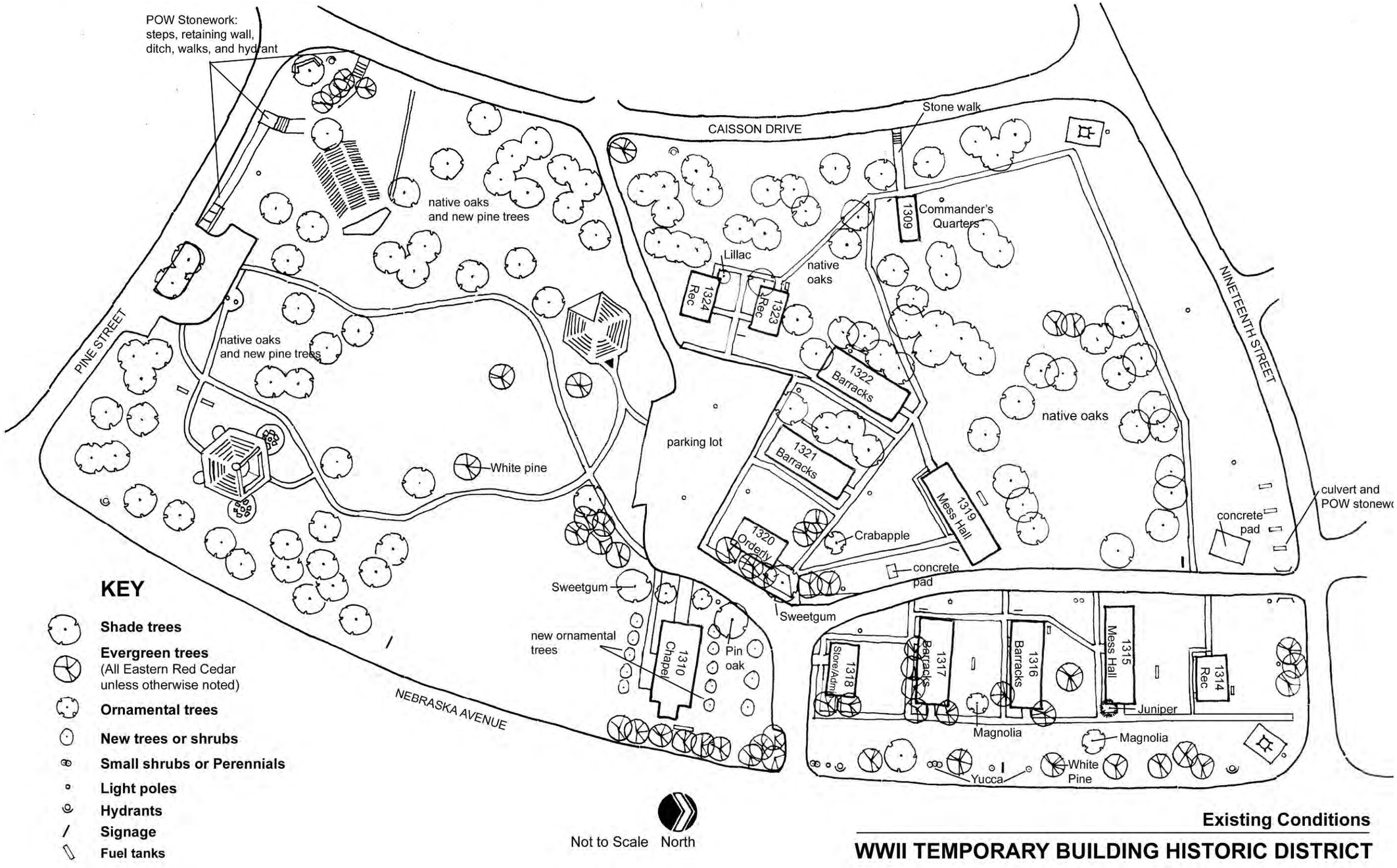


Figure 42. WWII Temporary Building Historic District existing conditions (ERDC-CERL, 2005).

Recommendations

- As vegetation is lost due to age and ice storms, consider following a consistent plan for replacement. Planting plans from the 1941 report (Figure 43) show heavy planting around the barracks at the corners and building entrances. While these plans are historic, it is evident that landscaping to this degree for enlisted men's barracks was never implemented at FLW. However, many cedars trees, and a few ornamental trees and shrubs do remain at the site, so we know landscaping was important. There will need to be a balance to maintain an accurate picture of the utilitarian life at a temporary Army camp, the pride Soldiers took in beautifying their living environment, and the current needs of a museum and memorial park. A scaled down planting example follows (Figure 44).

- It is recommended that, as the cedar trees planted directly adjacent to buildings are lost, that they be replaced with smaller species more in scale with the buildings such as ornamental trees and shrubs of varying size. Care should be taken to not plant these ornamental trees and shrubs too close to buildings so they touch and create moisture problems. Larger shade trees and evergreens should be planted farther from the buildings where they will provide needed shade but be less of a maintenance concern (Figure 45).

- Fieldwork revealed landscape planting focused on the fronts and sides of the buildings along Nebraska Avenue, possibly due to their higher visibility. In addition, there was some ornamental planting by the orderly room (Building 1320). The barracks and associated buildings to the west of these sited in an area of rolling topography are surrounded by native oak trees. It is recommended that this division be maintained and any ornamental planting be done around the buildings along Nebraska Avenue and the native oaks to the west be maintained naturally.

- Try to keep circulation patterns consistent for the WWII temporary side of the site. While difficult to do with the chapel and the new memorial park, it is important to understand the historic movement around the landscape and the buildings.

- As new memorials and additions are added to the memorial park, an effort should be made to keep non-compatible elements (modern lighting, modern style monuments and sculpture, any new structures, and new non-compatible circulation) away from the museum section of the site. Consider adding a buffer, possibly a rectilinear planting of Eastern Red Cedar along the parking lot to separate the old and the new.

- Since the landscape features on the site (open space, walkways, the arrangement, and distances between buildings) are crucial to the museum experience, any non-historic elements in this section of the site should be kept to a minimum. An inventory of site features (electrical wiring, poles, fuel tanks, air conditioning units, etc.) should be completed and any not in use by the museum should be removed. Attempts should be made to hide the essential modern features such as ac units with vegetation, or historically accurate wood boxes.

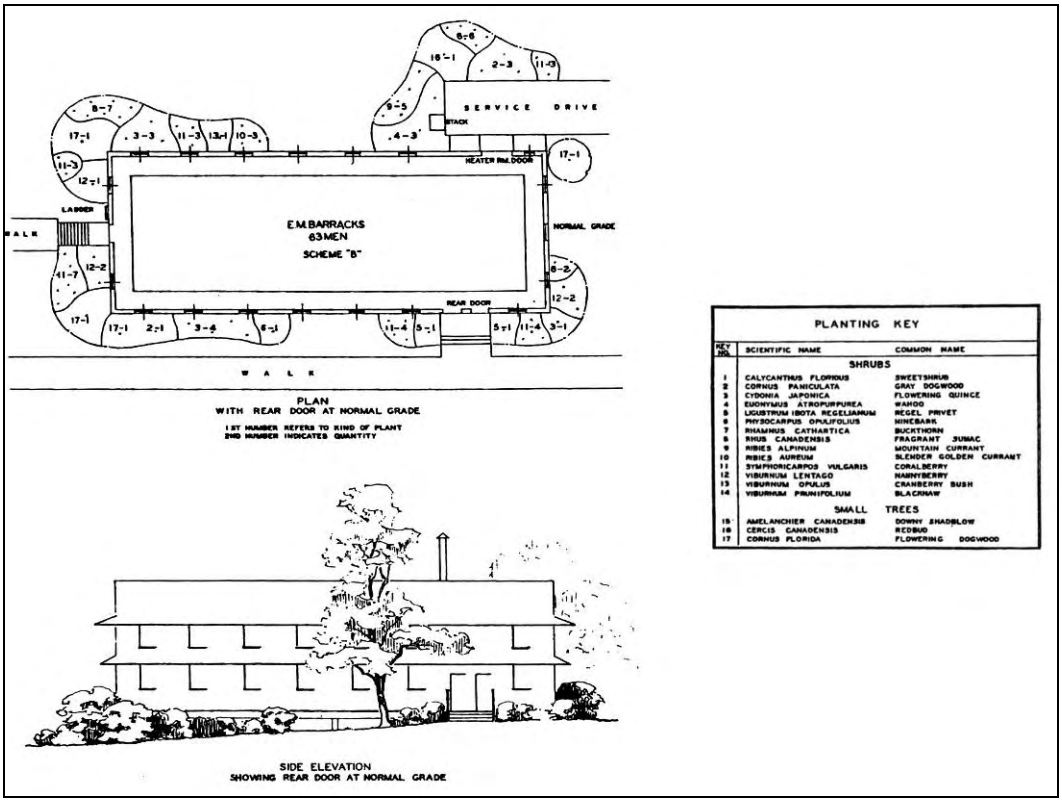


Figure 43. Example of 1941 planting plan for E.M. Barracks from Alvord, Burdick, Howson, 14 March 1941 (Robinson, 1941).

Figure 44. Proposed alternative to 1941 planting plan above (ERDC-CERL).

KEY

- Shade Tree
- Evergreen Tree
- Ornamental Tree
- Shrubs

Code	SHRUBS	No.
Ah	Annabelle Hydrangea	3
Bb	Burning Bush	4
Bt	Butterfly Bush	2
Bv	Blackhaw Virburnum	2
Ca	Carolina Allspice	4
Cb	Crimson Berberis	5
Ci	Compact Inkberry	6
Cv	Cranberrybush Viburnum	4
Gj	Gold Cone Juniper	2
Gv	Green Velvet Boxwood	5
Ha	Holstrup Arborvitae	2
Ju	Pfitzer Juniper	2
Kv	Koreanspice Viburnum	3
Mk	Miss Kim Lilac	4
Mp	Mugo Pine	1
Nd	Nikko Deutzia	3
Pj	Plumosa Creeping Juniper	2
Rr	Rosa rugosa	3
Ty	Taunton Yew	7
Vw	Varigated Weigela	3
Wh	Vernal Witchhazel	1

Planting Plan

WWII TEMPORARY BUILDING HISTORIC DISTRICT

Figure 45. Proposed planting plan for WWII Temporary Building Historic District (ERDC-CERL).

7 Gammon Field

History

The parade ground at FLW is 7,000 long and 3,500 feet wide, and dominates the center of the cantonment area. The built environment surrounds the parade ground on all sides. The parade ground serves as open space, recreation, and training space (Figure 46). An early 1941 map shows no north-south roads through the parade ground but notes that the east one-third is the Engineer Replacement Parade Ground and the west two-thirds is marked Division Parade Grounds.[51] The only buildings or features visible on the parade ground on this map are the Nutter Field House and the Fire Baptist cemetery. A 1946 map depicts the theaters and other structures on the parade ground.

Gammon Field is approximately eleven acres in size and located along Iowa Avenue in the southern half of the parade ground.[52] It has served as the ceremonial center of the installation since at least 1954 (Figures 47-49). Gammon Field was posthumously named in honor of Staff Sergeant Archer T. Gammon for heroics at Bastogne in January 1945. No evidence of Gammon Field was found prior to a 1954 photograph. No notations or names were found on the maps or plans from 1941 or 1946. In the 1954 photograph, one review stand is pictured with rows of folding chairs laid out on either side. Between 1954 and 1959, a concrete platform was added, complete with a narrow, white post and chain railing. By 1962, additional reviewing stands appear and the center one appears to have a stone foundation. In the 1962 and 1967 aerial images of Gammon Field, there are few if any trees present along Iowa Avenue, but visible are the formal circulation paths and formations for reviews of large numbers of Soldiers (Figures 50 and 51).

[51] Alvord, Burdick, Howson, *Fort Leonard Wood General Layout, 1 Jan 1941*.

[52] *Land Management Plan*, 1968, 22.

Figure 46. Judo demonstration on parade ground by 6th Armored Division, FLW, April 26, 1951 (NARA College Park, RG111-SC, box 204, photo 367 209).

Figure 47. Reviewing party for the retirement of Colonel George Keyser and Major Thomas Darnell at Gammon Field, 30 March 1954 (NARA College Park, RG111-SC, box 271, photo 450 256).

Figure 48. A farewell parade for Brigade General Gerald Kelleher, 6 June 1959 (NARA College Park, RG111-SC, box 349, photo 450 256).

Figure 49. Division review for 351st Regiment, 84th Division, 26 July 1962 (NARA College Park, RG111-SC, box 376, photo 597 980).

Figure 50. 85th Division Soldiers stand at attention during annual training exercise, August 1962 (NARA College Park, RG111-SC, box 380, photo 602 964).

Figure 51. Aerial of the 2nd Brigade graduation and farewell review at Gammon Field, 11 May 1967 (NARA College Park, RG111-SC, box 480. photo 640 604).

Significance

The parade ground at FLW has changed little over the years. It still hosts a variety of recreation and training needs. In fact, the theaters, fieldhouse, and several of the baseball and softball fields have remained in the same location since the beginning. Small changes such as the closure of a pool (now used as a maintenance yard), addition of parks, new softball fields and soccer fields have had no impact on the way the land is used and visualized. The new post exchange, just under construction during the field visit, located in the northwest corner of the parade ground, is extremely large in size and will affect views of the northern portion of the parade ground.

While the entire parade ground has remained relatively unchanged (except for recent construction of the new post exchange) it is Gammon Field, the ceremonial and focal area of the parade ground, that has retained the significance. All Soldiers that trained, passed through, and graduated FLW since the Cold War took part in ceremonies at Gammon Field. At an installation significant for its Cold War contributions in training and schooling in engineering, this landscape is what has remained constant over the years.

The site retains much of its integrity with the exception of the modern-looking review stands and metal bleachers (Figures 52-57). Also recently added, is the row of Pin Oak trees along Iowa Avenue. This formal row of trees is not visible in the 1963 and 1967 aerial images of Gammon Field. While they are not historic, they are listed as a compatible feature. They lend an element of formality to the ceremonial landscape and serve to shield ceremonies from the traffic and views of parked cars along Iowa Avenue. The expansive, new PX, located to the north of Gammon Field, does not detract from the integrity due to a rise in topography between the PX and Gammon Field (see Figure 56).

List of Character Defining Features

The character defining features of Gammon Field are the open space, circulation patterns, center reviewing stand, and views to the parade field.

Compatible features

Row of Pin Oak trees along Iowa Avenue, signage, tanks and other memorials, concrete flag bases, and reviewing platform.

Incompatible features

Metal bleachers, metal roofs of reviewing stands, modern lighting, and speakers.

Figure 52. Looking south across parade ground from Minnesota Avenue (ERDC-CERL, 2006).

Figure 53. Looking north along Iowa Avenue (ERDC-CERL, 2006).

Figure 54. Looking west across Gammon Field from training areas (ERDC-CERL, 2005).

Figure 55. Looking east at rear of center reviewing stand and across Gammon Field (ERDC-CERL, 2006).

Figure 56. View of Gammon Field looking north toward new PX (ERDC-CERL, 2006).

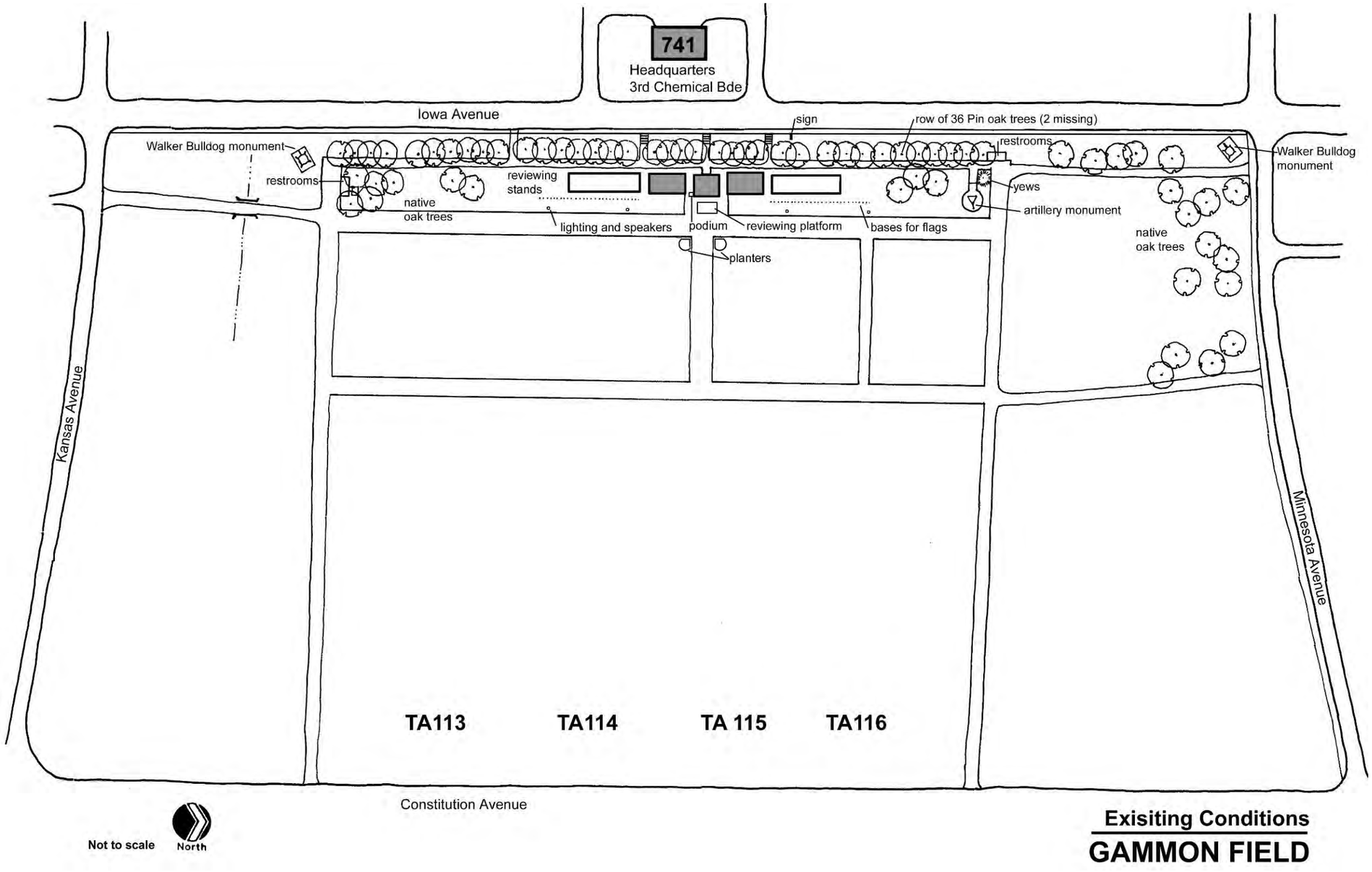


Figure 57. Gammon Field existing conditions (ERDC-CERL, 2006).

Recommendations

- Replace missing trees in the row of Pin Oaks along Iowa Avenue.
- Preserve the formal circulation patterns on the field, as it clearly separates the formal from the rest of the informal landscape.
- Consider replacing/modifying the reviewing stand materials, specifically the metal roofs, in keeping with the stonework on the center reviewing stand.
- Maintain the informal plantings of oaks at the periphery of the parade ground to blend the formal with the existing landscape.
- Make sure modern additions such as lighting, speakers, and mechanical/electrical boxes are hidden as best possible and not in significant views. This applies to rest-rooms too.
- Maintain the views toward the parade ground, training areas and the parade ground beyond.

8 Old Post Headquarters/Old Red Cross Building

History

The Old Post Headquarters and Red Cross buildings were built in 1941 along Missouri Avenue on a prominent high point of the cantonment area. The 1941 *Landscape Development Report* noted this was the main entrance to the Fort and its appearance should reflect this to the public.[53] It also noted that a large court area should be developed about which all the buildings are grouped and that it should be plowed, graded, and seeded to a fine turf with large trees for shade (Figure 58 and 59). A 1941 landscape plan included with the report does not note the location of the flag pole or the Red Cross building so it is difficult to tell if the plan was ever followed. In addition, half of the grouping of buildings was removed with the construction of the hospital in the early 1960s (Figure 60). POW stonework added to the site included a 600 foot stone covered embankment along Missouri Avenue, along with retaining walls, walkways, ditches, and steps. Photographs over the years depict small scale changes to the site such as the addition of white bollards, flower beds, flags, or artillery displays (Figures 61-64).

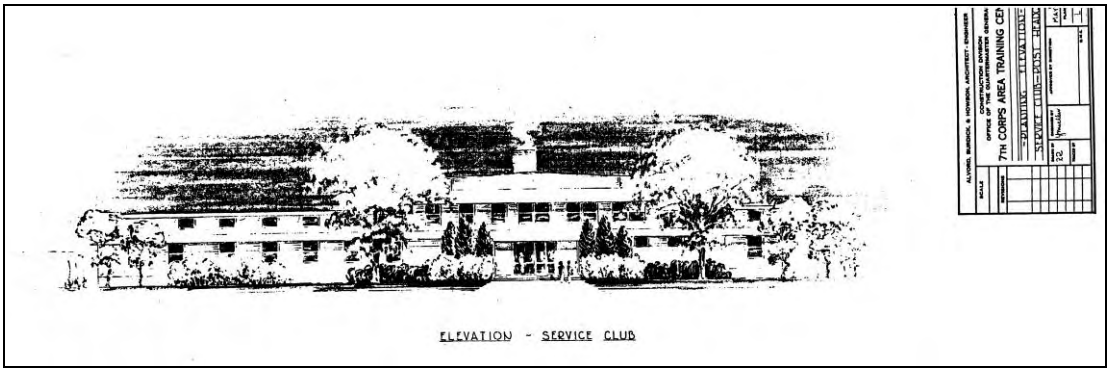


Figure 58. Elevation of planting plan for Service Club across from Post Headquarters (Robinson, *Landscape Development Plan*, 1941).

[53] Robinson, *Landscape Development Report*, 1941, 57.

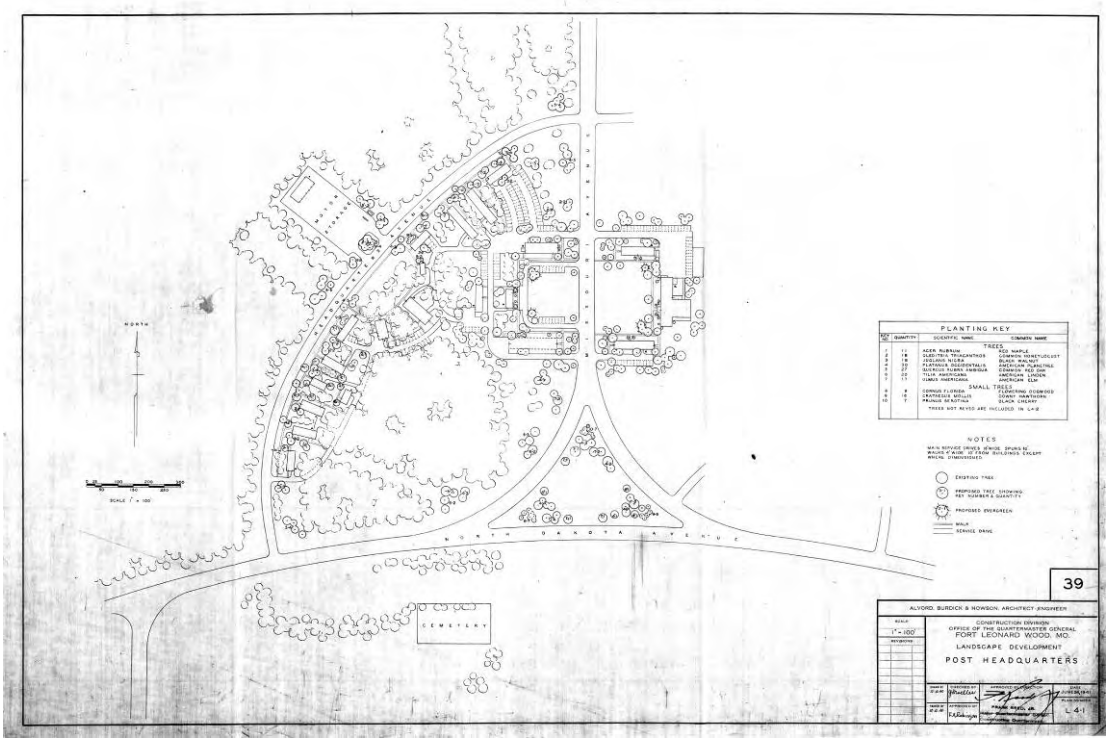


Figure 59. Landscape Development plan for post headquarters, Alvord, Burdick and Howson, Architect Engineer, 24 June 1941 (courtesy, USAES History Office, FLW).

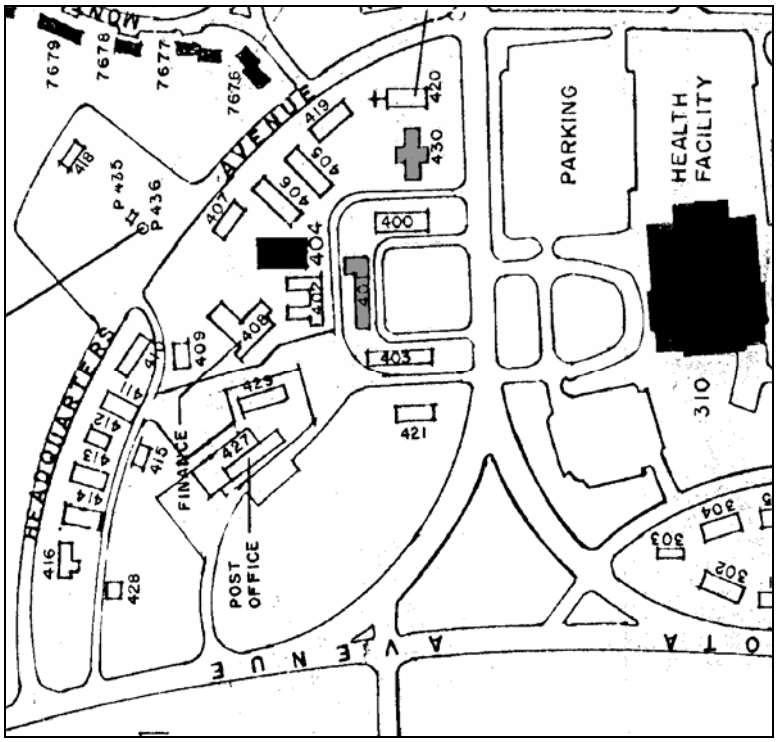


Figure 60. Diagram of Post Headquarters and Red Cross buildings as built from 1968 map (courtesy, USAES History Office, FLW).

Figure 61. Old post card depicting Post Headquarters, FLW, date unknown, (FLW WWII Historic District Museum).

Figure 62. Photograph of Post Headquarters, 1956 (FLW Engineer Center History Office).

Figure 63. View of Post Headquarters and Red Cross Building, date unknown (FLW Engineer Center History Office).

Figure 64. View of Post Headquarters, date unknown (FLW Engineer Center History Office).

Significance

The formal, focal landscape in front of the Old Post Headquarters and Red Cross buildings is a significant component of the historic WWII Mobilization cantonment (Figures 65 and 66). The buildings were laid out and grouped as to convey the impression of importance and that is still visible today. The POW stonework that surrounds the buildings is significant for its cultural heritage and mark it left of the landscape. The prominent site, located near the entrance to FLW with significant views to the parade field, is the same today (Figure 67).

While the landscape in front of the Old Post Headquarters has seen many additions over the years, the formal lawn with the flagpole in the center has remained relatively unchanged (Figure 68). The stone walk around the flagpole is missing and replaced by concrete, and the landscaping is minimal both along the foundation of the building and around the lawn. The landscape around the Old Post Headquarters is less formal than it was historically; gone are the flanking specimen trees on either side of the entrances.

The Red Cross building has new landscaping that is heavier than what was there historically, but is compatible with its current use as a guesthouse.

Character Defining Features

Character defining features of the Old Post Headquarters and the Old Red Cross building are the site stonework, the flagpole, the open lawn in front of Post Headquarters building, the circular drive, the views to and from the parade ground and from Missouri Avenue, and small scale features such as maintenance covers and utilities.

Compatible features

Artillery displays, planters, and new landscaping at the Red Cross site.

Incompatible features

Concrete front walk.

Figure 65. Photograph of POW stonework and Old Post Headquarters (ERDC-CERL, 2005).

Figure 66. Photograph of POW stonework and Old Red Cross Building (ERDC-CERL, 2005).

Figure 67. View from Old Post Headquarters to Veterans Park and parade ground (ERDC-CERL, 2005).

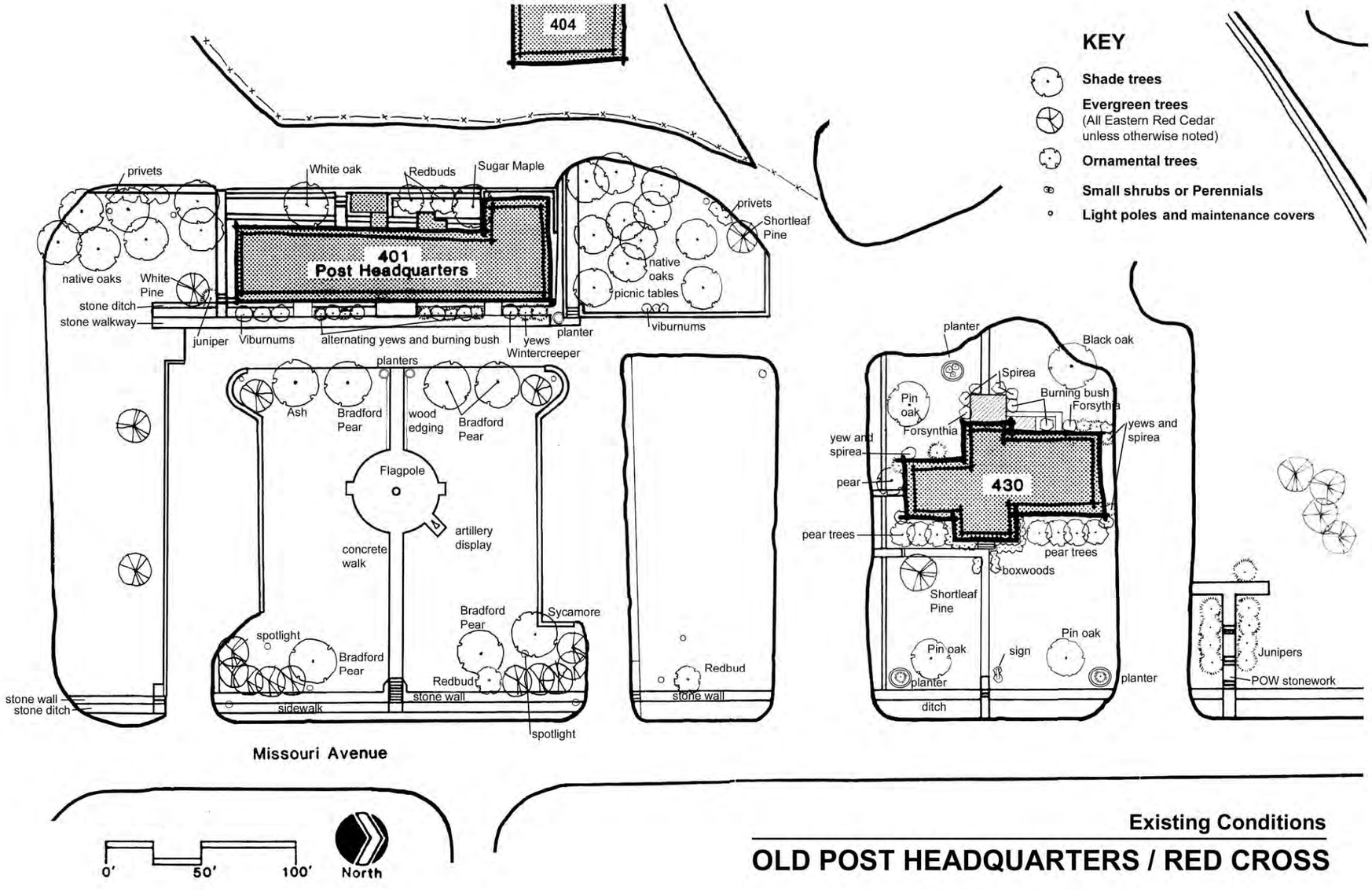


Figure 68. Old Post Headquarters existing conditions (ERDC-CERL, 2005).

Recommendations

- Preserve important small-scale features of the site including the extensive POW stonework, walks, flagpole, retaining walls, and any utility features from WWII era.

- Replace stone walk and flowerbed or grass area circling the flagpole. Remove wood edging and planters if possible.

- Add foundation plantings and formal vegetation around perimeter of front lawn area according to 1941 plans and 1956 photograph (Figures 69-71). While the site remains nicely landscaped, the initial design scheme has been muddied over the years. The proposed plan below recommends replacing the evenly spaced and sized shrubs along the front of the building with ones that are varying shapes and serve to accent the entrances in hierarchical order similar to those present in the 1956 photograph. In addition, the row of Bartlett pear trees in front of the building should be limbed up to allow for more views of the architecture from the road. Shrubs can be added to the front lawn area along the north and south sides as were there historically to increase the formality and add visual interest (at flowering times) to the landscape.

- Diagrams are included below with two design possibilities for planting the open lawn areas north and south of the Old Post Headquarters (former sites of buildings 400 and 403) (see Figure 70). The first design idea depicts gently extending the native oak plantings from the north and south sides of the building to the two lawn areas to frame the formal center lawn area. The second design depicts a formal row of trees, like Eastern red cedar, along the edge of the site both to frame the formal landscape of the Old Post Headquarters front lawn area and in keeping with the architecture that once stood there.

- It is important to maintain the visual connection to the site from Missouri Avenue. Avoid planting a row of shrubs (or adding white bollards or fencing which appear in earlier photographs) along the front of property, which may obscure this view from a vehicle.

Figure 69. Drawing of proposed changes to existing landscape at the Old Post Headquarters (ERDC-CERL).

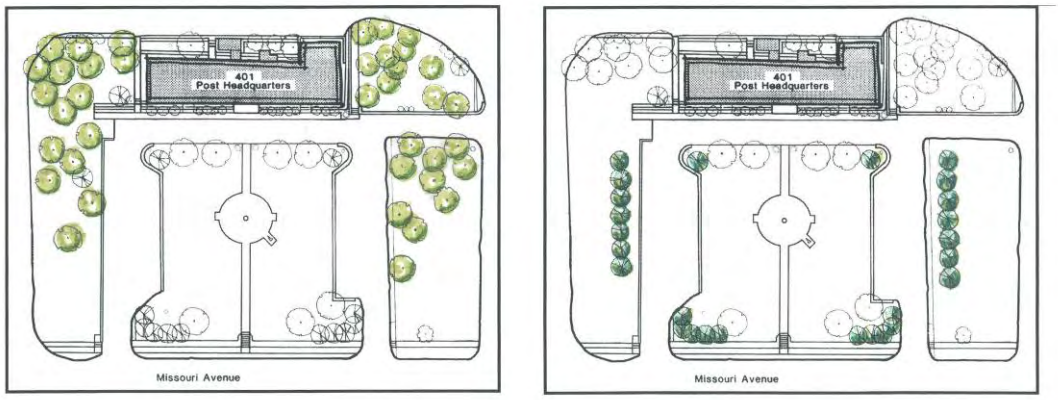
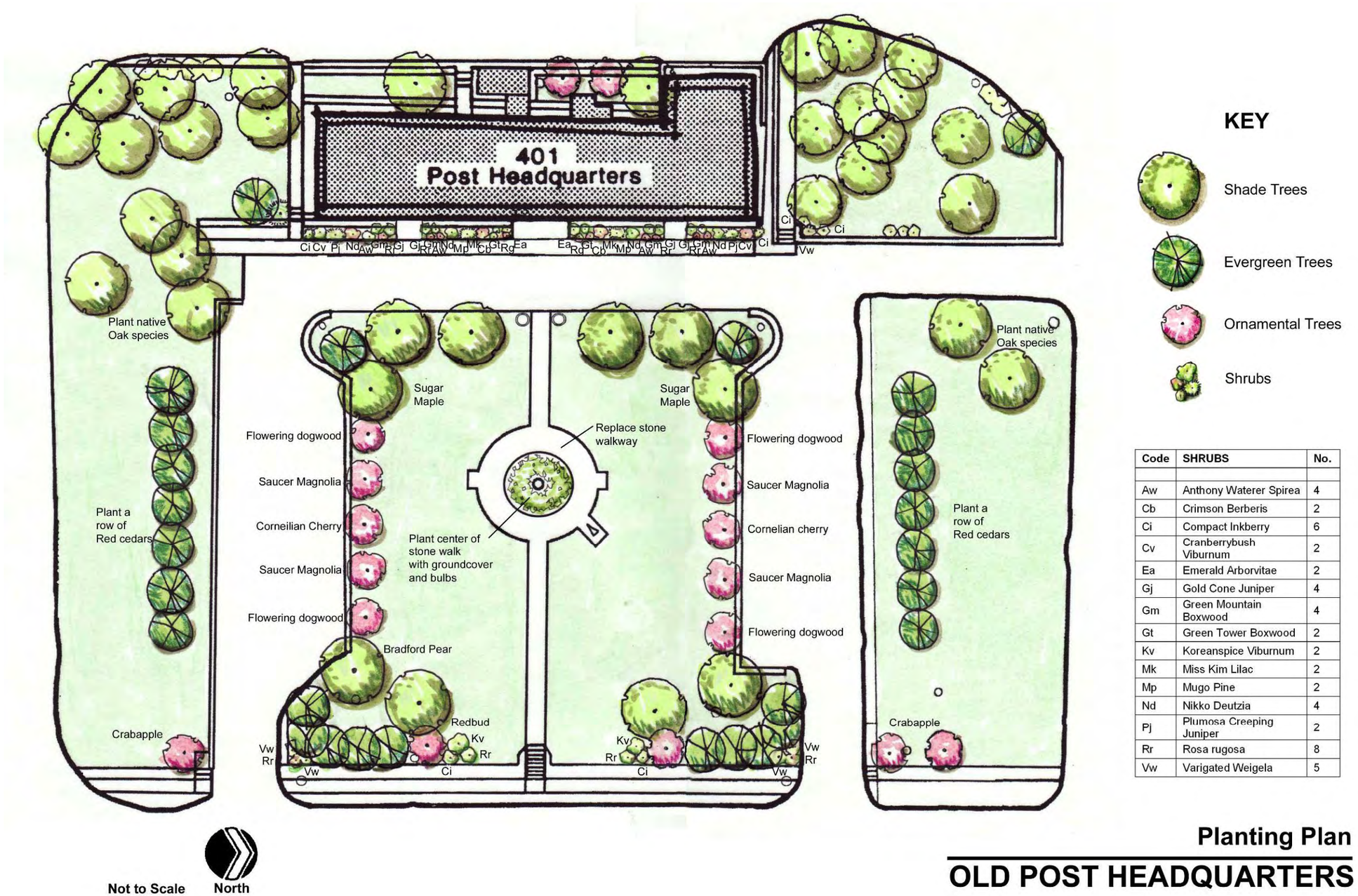


Figure 70. Diagrams depicting two design ideas for the empty lots north and south of the Old Post Headquarters. On the left, extending existing native oak plantings, and on the right, planting two formal rows of evergreens where the buildings stood.



KEY

Shade Trees

Evergreen Trees

Ornamental Trees

Shrubs

Code	SHRUBS	No.
Aw	Anthony Waterer Spirea	4
Cb	Crimson Berberis	2
Ci	Compact Inkberry	6
Cv	Cranberrybush Viburnum	2
Ea	Emerald Arborvitae	2
Gj	Gold Cone Juniper	4
Gm	Green Mountain Boxwood	4
Gt	Green Tower Boxwood	2
Kv	Koreanspice Viburnum	2
Mk	Miss Kim Lilac	2
Mp	Mugo Pine	2
Nd	Nikko Deutzia	4
Pj	Plumosa Creeping Juniper	2
Rr	Rosa rugosa	8
Vw	Varigated Weigela	5

Planting Plan

OLD POST HEADQUARTERS

Figure 71. Old Post Headquarters proposed planting plan (ERDC-CERL).

9 Plant List

The following plant list was adapted from plant lists included with the 1941 *Landscape Development* report by the landscape architecture firm of Robinson and Parnham and the *Landscape Planting and Maintenance Plan for Fort Leonard Wood* by the Kansas City United States Army Engineer District completed 1957-1968. Deletions, substitutions, and recommendations added based on pest issues, maintenance, and current availability in the nursery trade.

Shade Trees

Scientific name	Common name	Size	Habit	Characteristics
Acer platanoides	Norway Maple	Height 60-80’	oval to rounded	yellow fall color
Acer rubrum	Red Maple	Height 60-80'	rounded	rich fall color
Acer saccarium	Sugar Maple	Height 60-80'	rounded	rich fall color
Aesculus glabra	Ohio Buckeye	Height 60-80’	rounded	evergreen
Carpinus caroliniana	American hornbeam	Height 30’	oval to columnar	shade tolerant, gray, fluted bark
Fraxinus americana	White Ash	Height 60-80’	pyramidal to oval	fall color
Fraxinus pennsylvanica	Green Ash	Height 50-60’	oval	yellow fall color
Gleditsia tricanthos var. inermis	Thornless Honey Locust	Height 60-80’	pyramidal	yellow fall color
Juglans nigra	Black Walnut	Height 60-100’	oval	Note: fruit is messy
Liquidambar styraciflua	Sweetgum	Height 60-80’	pyramidal	Note: fruit is messy
Lirodendron tulipifera	Tulip tree	Height 70-90’	oval rounded	fall color

Scientific name	Common name	Size	Habit	Characteristics
Ostrya virginiana	Hop Hornbeam	Height 30-50'	oval to rounded	attractive habit
Platanus occidentalis	American Planetree	Height 80-100'	wide spreading	interesting bark
Quercus alba	White Oak	Height 70-90'	rounded	russet fall color
Quercus bicolor	Swamp White Oak	Height 70-90'	rounded	good for moist soils
Quercus coccinea	Scarlet Oak	Height 50-80'	rounded	brilliant fall color, hard to transplant
Quercus marilandica	Blackjack Oak	Height 70-90'	rounded	many at FLW
Quercus muhlenbergi	Chinquapin Oak	Height 70-90'	rounded	yellow fall color, hard to transplant
Quercus plaustris	Pin Oak	Height 70-90'	rounded	easy to grow, russet fall color
Quercus rubra	Red Oak	Height 70-90'	rounded	red fall color
Quercus phellos	Willow Oak	Height 70-90'	rounded	fine textured
Tillia americana	American Linden	Height 70-90'	oval rounded	flowers in June

Evergreen Trees

Scientific name	Common name	Size	Habit	Characteristics
Juniperus virginiana	Red Cedar	Height 40-50'	columnar to oval-rounded	highly used on military installations and at FLW
Picea abies	Norway Spruce	Height 30-50'	pyramidal	evergreen
Pinus echinata	Shortleaf Pine	Height 60-80''	oval-rounded	native to Pulaski County, species does well at FLW
Pinus nigra	Austrian Pine	Height 50-80'	oval to picturesque	evergreen

Scientific name	Common name	Size	Habit	Characteristics
Pinus strobus	White Pine	Height 50-80'	oval to picturesque	evergreen
Pinus sylvestris	Scotch Pine	Height 50-80'	pyramidal to picturesque	evergreen
Thuja occidentalis	American Arborvitae	Height 15-25'	columnar to oval	evergreen

Ornamental Trees

Scientific name	Common name	Size	Habit	Characteristics
Acer ginalla	Amur Maple	Height 18'	rounded	nice fall color
Amelanchier canadensis	Downy Shadblow	Height 15-25'	rounded	white spring flowers, red fall color
Cercis canadensis	Redbud	Height 20'	rounded	pink flowers early in spring
Cornus florida	Flowering Dogwood	Height 30'	rounded	white flowers in spring
Cornus mas	Cornelian Cherry	Height 20'	rounded	yellow flowers in spring
Crataegus crusgalli var. inermis	Thornless Cockspur Hawthorn	Height 15-20'	broad-rounded	showy white flowers in spring
Koelreuteria paniculata	Goldenrain tree	Height 40'	oval	yellow flowers in June
Malus cultivars	Crabapple	Height 15'	rounded to broad-rounded	select disease resistant varieties, flowers in spring
Magnolia virginiana	Sweetbay Magnolia	Height 20-30'	rounded	showy creamy white flowers in spring, best plant in a protected area

Scientific name	Common name	Size	Habit	Characteristics
Magnolia soulangeana	Saucer Magnolia	Height 20-30’	rounded	showy pink-white flowers in spring
Prunus maakii	Amur Chokecherry	Height 30-40’	pyramidal	white flowers in May
Pyrus calleryana	Flowering Pear	Height 30-40’	pyramidal	white flowers in early May, fall color

Shrubs and Ground Covers

Scientific name	Common name	Size	Habit	Characteristics
Aronia arbutifolia ‘Brilliantissima’	Red Chokeberry	Height 6-8’, Spread 3-5’	rounded	fall color, showy fruit
Berberis thunbergii	Japanese Barberry	Height 2-4', Spread 2-4'	rounded	rich green or purple foliage, red berries in fall
Buddeia davidii	Butterfly bush	Height 5-10', Spread 5-10'	rounded arching	flowers summer
Buxus ‘Green Mountain’	Green Mountain Boxwood	Height 3-5', Spread 2-4'	upright, pyramidal	evergreen
Buxus ‘Green Velvet’	Green Velvet Boxwood	Height 2-3', Spread 2-3'	low, rounded	evergreen
Buxus sempervirens ‘Green Tower’	Green Tower Boxwood	Height 5-9', Spread 2-3'	upright, columnar	evergreen
Calycanthus floridus 'Athens'	Carolina Allspice	Height 4-6', Spread 4-6'	compact rounded	fragrant light yellow flowers in May, fall color
Chaenomeles speciosa	Flowering Quince	Height 2-4', Spread 3-5'	broad rounded and spreading	many cultivars, stunning flower display in spring
Cornus alba	Tatarian Dogwood	Height 5-6', Spread 5-6'	rounded	some with variegated leaves

Scientific name	Common name	Size	Habit	Characteristics
Cotoneaster acutifolius	Peking cotoneaster	Height 5-8', Spread 5-8'	rounded	fall color, black fruit
Deutzia gracilis 'Nikko'	Nikko Deutzia	Height 18-30", Spread 4-6'	spreading	white flowers in late spring, deep burgundy fall color
Euonymus alatus 'Compactus'	Compact Burning Bush	Height 6-8', Spread 4-6'	rounded	fall color
Forsythia x intermedia	Border Forsythia	varies per cultivar	arching	yellow spring flowers
Hamamelis vernalis	Vernal Witchhazel	Height 6-10', Spread 6-10'	rounded	yellow-red flowers February-March
Hamamelis virginiana	Common Witchhazel	Height 15-25', Spread 15-25'	rounded	yellow flowers in November
Hydrangea macrophylla or *serrata*	Big leaf Hydrangea	Height 3-5', Spread 3-5'	broad rounded	blue or pink flowers in mid-summer
Hydrangea arborescens 'Annabelle'	Annabelle Hydrangea	Height 3-4', Spread 3-6'	broad rounded	large, snowball-like white flowers in summer
Ilex glabra 'Compacta' or 'Nordic'	Compact Inkberry Holly	Height 3-5', Spread 3-5'	upright , oval	excellent for foundations, hedges and massing
Juniperus chinensis	Pfitzer Juniper	Height 3-5', Spread 1' to 2'	rounded	many cultivars
Juniperus communis 'Gold Cone'	Gold Cone Juniper	Height 5-10', Spread 4' to 6'	dense upright	narrow columnar evergreen
Juniperus horizontalis	Creeping Juniper	Height 1' to 2', Spread 4' to 6'	spreading	groundcover, many cultivars, Plumosa is one
Juniperus sabina 'Broadmoor'	Broadmoor Savin Juniper	Height 1' to 2', Spread 4' to 6'	spreading	fine-textured, bright green, mounded

Scientific name	Common name	Size	Habit	Characteristics
Kerria japonica	Japanese Kerria	Height 3-6', Spread 4-6'	upright arching	yellow flowers in May
Kolkwitzia amabilis	Beauty bush	Height 6-10, Spread 4-6'	upright arching	pink flowers in May
Ligustrum vulgare	Privet	Height 8-10', spread 6-8'	upright	good hedge planting
Pachysandra terminalis	Pachysandra	Height 6-8", Spread 9-12"	low growing	an evergreen ground cover
Philadelphus coronarius	Sweet Mockorange	Height 10-12', Spread 10-12'	rounded	flowers May-June
Pinus mugo 'Slowmound"	Slowmound Mugo Pine	Height 3-5', Spread 3-5	broad-rounded	dwarf evergreen with dense, dark green foliage
Prunus glandulosa	Dwarf Flowering Almond	Height 3-5', Spread 3-4'	broad rounded and leggy	pink or white showy flowers in April
Rhododendron 'Rosy Lights'	Rosy Lights Azalea	Height 4-5', Spread 4' to 5'	rounded	many 'Lights' cultivars, cold hardy, spring flowering pink
Rosa rugosa	Rugosa Rose	Height 4-5', Spread 4-5'	rounded	flowers all summer long
Spiraea japonica 'Anthony Waterer'	Anthony Waterer Spirea	Height 2-3', Spread 2-4'	rounded to broad rounded	bright rose-pink flowers from June to September
Spiraea thunbergii	Baby's breath Spirea	Height 1'-2' Spread 2'-4'	rounded	showy, graceful shrub
Spiraea x vanhouttei 'Snow White'	Snow White Vanhoutte Spirea	Height 4'- 6' Spread 4'-6'	rounded	compact form, white flowers spring
Spiraea x bumalda 'Magic Carpet'	Magic Carpet Bumald Spirea	Height 1'-2' Spread 2'-4'	rounded	new growth is bright orange changing to chartreuse; finally

Scientific name	Common name	Size	Habit	Characteristics
				red fall color and Deep purple-pink flowers in late spring
Syringa patula "Miss Kim"	Miss Kim Dwarf Lilac	Height 5-8', Spread 5-8	compact	flowers in mid-May
Syringa vulgaris	Common Lilac	Height 10-15', Spread 6-12'	arching, rounded	flowers in spring
Taxus x media 'Taunton'	Taunton Yew	Height 3-4', Spread 4-6'	broad-rounded	a low, spreading, graceful form that is resistant to winter burn
Thuja occidentalis 'Hetz Midget'	Hetz Midget Arborvitae	Height 3-4' Spread 2-3'	rounded	evergreen
Thuja occidentalis 'Holmstrup'	Holmstrup Arborvitae	Height 3-6', Spread 2-3'	pyramidal	evergreen
Thuja occidentalis 'Emerald'	Emerald Arborvitae	Height 15-20', Spread 4-6'	pyramidal	evergreen
Viburnum carlesii 'Cayuga' or 'Compactum'	Koreanspice Viburnum	Height 3-5', Spread 3-6'	Rounded, broad rounded	very fragrant white flowers in early spring and fall color
Viburnum prunifolium	Blackhaw Viburnum	Height 12-15', Spread 8-12'	rounded	flowers in May
Viburnum rufidulum	Southern Blackhaw	Height 10-20', Spread 10-20'	rounded	white flowers in May
Viburnum trilobum 'Compactum'	Compact American Cranberrybush Viburnum	Height 4-5', Spread 3-4'	dense rounded	white flowers in May and June are followed by red fruit, glossy green foliage turns red to purple in fall

Scientific name	Common name	Size	Habit	Characteristics
Vinca minor	Vinca	Height 4-6", Spread 9-14"	low growing	a spreading, ever-green ground cover
Weigela florida 'Variegata'	Variegated Weigela	Height 3-5', Spread 3-5'	rounded	green leaves edged in a creamy white with pink blossoms late spring

10 Conclusion

The layout of the FLW cantonment was in direct response to the terrain of the Ozark highlands. Buildings were sited based on topography and not the highly uniform, rectilinear layout of most WWII mobilization camps. The adjacent scenic Mark Twain National Forest, the informal park-like atmosphere of the installation, and the expansive parade ground with associated open space make it one of the most scenic Army installations.

In this report, the cantonment landscape was evaluated for inclusion in the NRHP. While the roadway system, the layout and land use of FLW retains much of its WWII integrity, this report finds that, as a whole, the FLW cantonment area does not possess enough historic significance and integrity to make it eligible for the NRHP as a historic district. However, several individual landscape component areas within the cantonment have the significance and integrity to be individually eligible. These sites, Veterans Park, the WWII Temporary Historic District, Gammon Field, and the Old Post Headquarters and Red Cross Building, are integral to the overall history of FLW and its unique layout in direct response to the natural landscape and the mission of a WWII mobilization camp.

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14. ABSTRACT

This document is an inventory and evaluation of the landscape features of the cantonment area at Fort Leonard Wood. This document serves to meet the requirements for Federal agencies to address their cultural resources, defined as any prehistoric or historic district, site, building, structure, or object, specifically, Section 110 which requires Federal agencies to inventory and evaluate their cultural resources.

The layout of the cantonment in response to the rolling hills and terrain of the Ozarks Highlands has quite an impact on the scenic views, the curvilinear roadways, and the park-like open space on the parade ground. While the current layout, land use, and roadways remain very similar to the historic WWII landscape, field reconnaissance and historical data analysis did not provide sufficient evidence for the whole cantonment as a historic district. However, several component landscapes throughout the cantonment were determined eligible for the NRHP. These landscapes include Veterans Park, Gammon Field, the Old Post Headquarters and the Red Cross Building, and the WWII Temporary Historic District. In addition, this report makes several recommendations for the maintenance and upkeep of the eligible component landscapes.

15. SUBJECT TERMS
Fort Leonard Wood, MO; National Register of Historic Places (NRHP); cultural resources management; Historic preservation; historic landscapes; stonework

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