Environmental Assessment for a Clinical Addition and Renovations at Fayetteville, Arkansas Veterans Administration Medical Center

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EXECUTIVE SUMMARY

The VAMC Fayetteville is part of the South Central VA Health Care Network of Veterans Integrated Service Network #16 (VISN 16) Upper Western Market, providing inpatient and outpatient treatment in Fayetteville, Arkansas. The VAMC Fayetteville delivers services to a population of 140,000 veterans in a service area that includes 24 counties in Arkansas, Missouri, and Oklahoma. Geographically spanning 170,000 square miles, VISN 16 provides health care services through 10 medical centers, 30 community-based outpatient clinics, 7 nursing homes, and 2 domiciliary units.

The VAMC Fayetteville is a 70-bed facility which provides acute medical, surgical, psychiatric care and both primary and secondary levels of out-patient services to veterans. Other services offered include cardiology and surgical clinics plus specialty clinics for urology, optometry, diabetes, women's health, and mental hygiene. Additional services at the medical center include dental care, a combined cardio-pulmonary function lab, ultrasound, echocardiography services, and an ambulatory surgery program. The facility provides employment opportunities for approximately 1,050 people.

The existing campus became operational in 1934. In 1983, a Clinical Addition added 18,900 square feet and primary care additions added 18,112 square feet in 1997 and 2001. In 2004, VAMC Fayetteville was identified as incapable of meeting the healthcare needs of the growing veteran population within the guidelines established by the VA's Capital Asset Realignment for Enhanced Services (CARES). The Medical Center has also exceeded its maximum annual operational capacity of 300,000 visits by handling 422,160 outpatient visits in 2007.

To meet the growing need, the subject of this EA is the construction and operation of a Clinical Addition to the Fayetteville Arkansas Veterans Administration Medical Center.
The new facility footprint would encompass approximately 119,136 square feet and would provide Specialty Clinics, Rehab, Imaging, Outpatient Testing, Cardio-Pulmonary, and additional Lab and Pharmacy space. The Proposed Action would also include the renovation of 13,185 square feet of existing lab and pharmacy within Buildings 1 and 2. The proposed action also includes ancillary parking to built around the proposed Clinical Addition to accommodate the influx of new staff and patients.

A judicious review of five alternatives was conducted to ensure that the needs of the veterans were met and that taxpayers and government officials could be assured that the appropriations for this project represent the best use of public funds. Alternatives considered included: no action, new construction of an addition on the existing facility, leasing of new off campus space, contracting for services with other off-site facilities, and the renovation of existing space.

This alternative is the preferred alternative and represents the proposed action - the construction and operation of a new Clinical Addition to the existing Main Hospital

Implementing the Proposed Action would assist in meeting the Secretary's priorities and the President's management agenda by enhancing the quality of care while meeting the community standard of care. It will also satisfy all five goals of the Department of Veterans Affairs Strategic Plan including the objective to provide high quality, reliable, accessible, timely and efficient

health care that maximizes the health and functional status of all enrolled veterans. The proposed project is the most viable and cost effective alternative to meet CARES gaps in specialty and ancillary services, thereby enhancing the facility's ability to provide coordination and continuum of care to meet the total health care needs of the veteran.

The EA identified several potential environmental issues associated with the implementation of the Project. The impacts of principal concern would be on historic resources, particularly on Buildings 1 and 2, which were constructed in the early 1930's, and will be closely associated with the Project. These issues have been adequately addressed by the architecture of the Clinical Addition, which is sensitive to the historic qualities of the existing buildings and campus in general. A review by the Arkansas Historic Preservation Program has found there will be no adverse effect.

Impacts on parking were also found to be *significant-if-not-mitigated.* Parking offsite will be utilized if parking on site becomes an issue during construction. The area at the east side of the parking lot from the new entrance drop off loop has been considered for construction staging and parking. To address the anticipated future demand, three new parking lots will be sited during the planning for future minor projects on the campus. These parking lots will accommodate 177 parking spaces to meet the expected 2026 requirement.

The principal conclusions of this EA are:

1. The implementation of the Clinical Addition and Renovations at the Fayetteville Arkansas Veterans Administration Medical Center would provide needed additional medical services to accommodate the rapidly increasing number of veterans in the VISN 16 Upper Western Market, and fulfill the VA Strategic Plan goals to provide high quality, reliable, accessible, timely, and efficient health care that maximizes the health and function of all enrolled veterans,

2. The construction and operation of the Project would not result in any *significant-and-unmitigable* adverse impacts on the natural or human environments that would preclude the issuance of a FONSI; and

3. The implementation of the No Action Alternative would have no adverse impacts to the natural or human environment, but it would not provide any of the benefits associated with the Preferred Alternative. Maintaining the status quo would mean escalating issues relating to the distribution and availability of services for veterans in the area of service. It also means that the VA would not meet its goal of providing a full continuum of patient-centered one-stop quality health care for primary and specialty with supporting ancillary services.

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SECTION 1.0 PURPOSE AND NEED FOR THE PROPOSED PROJECT

This section describes the purpose and scope of the Environmental Assessment (EA). The section also summarizes the Project background, purpose and need for the Project, methods of evaluation used in the EA, and the approach used to involve the public.

The National Environmental Policy Act (NEPA) of 1969 (24 U.S. Code [USC] 43211-4347, as amended), requires Federal agencies to evaluate environmental impacts associated with proposed major actions. The Council of Environmental Quality (CEQ) established regulations that govern the implementation of procedures outlined in NEPA (Title 40, Code of Federal Regulations [CFR] Parts 1500-1508). The Veterans Administration (VA) implements NEPA and the CEQ requirements through VA regulations 38 CFR, Part 26.6(c) Environmental Effect of VA Actions.

Due to the potential for significant adverse environmental impacts, VA Projects must be preceded by the preparation of an EA when they meet certain thresholds. The purpose of an EA is to provide a sufficient basis to determine whether the Project would result in significant adverse effects on the environment, thereby requiring the preparation of an Environmental Impact Statement (EIS). If the results of the EA indicate that no significant adverse effects would occur from the action, the EA will be used to document and justify a Finding of No Significant Impact (FONSI).

1.1 Project Background

The VAMC Fayetteville is part of the South Central VA Health Care Network of Veterans Integrated Service Network #16 (VISN 16). VISN 16 is an integrated, comprehensive health care system that provided health care services to 445, 000 veterans in 2003. Geographically spanning 170,000 square miles, VISN 16 delivers health care services through 10 medical centers, 30 community-based outpatient clinics (CBOC's), 7 nursing homes, and 2 domiciliary units.

The VAMC Fayetteville is part of the Upper Western Market, providing inpatient and outpatient treatment in Fayetteville, Arkansas and provides outpatient care at CBOC's in Fort Smith and Harrison, Arkansas, and Mt. Vernon, Missouri. The VAMC Fayetteville provides services to a population of 140,000 veterans in a service area that includes 24 counties in Arkansas, Missouri, and Oklahoma.

The VAMC Fayetteville is a 70-bed facility which provides acute medical, surgical, psychiatric care and both primary and secondary levels of out-patient services to veterans. Other services offered include cardiology and surgical clinics plus specialty clinics for urology, optometry, diabetes, women's health, and mental hygiene. Additional services at the medical center include dental care, a combined cardio-pulmonary function lab, ultrasound, echocardiography services, and an ambulatory surgery program. The facility provides employment opportunities for approximately 1,050 people.

The VAMC Fayetteville is primarily affiliated with the University of Arkansas for Medical Sciences in Little Rock and the University of Arkansas in Fayetteville. Other partners include the University of Central Arkansas in Conway, and the Northeastern State University in Tahlequah, OK. The facility offers residency training in all major medical and surgical specialties and subspecialties and funds more than 15 medical and 3 dental resident slots. Training is also provided to over 400 nursing and associated health trainees. The VAMC Fayetteville also supports nurse-training programs with the University of Arkansas, Northwest Arkansas Community College, and the Northwest Technical Institute.

The existing campus became operational in 1934. In 1983, a Clinical Addition added 18,900 square feet and primary care additions added 18,112 square feet in 1997 and 2001. The VA proposes the construction of a new Clinical Addition, which will allow VAMC Fayetteville to provide a full continuum of patient-centered one-stop quality care for Primary and Specialty Care with supporting Ancillary Services.

1.2 Project Setting

The Project setting is Fayetteville, Arkansas located approximately 200 miles and 3 hours north of the State Capitol, Little Rock. Located in Washington County, Fayetteville is the state's northwest hub that serves as the county seat to the third most populous county in Arkansas. Northwest Arkansas is the 6th fastest growing metropolitan statistical area in the U.S. and this is putting additional pressure on the VAMC Fayetteville facility. Figure 1-1, "Regional Location Map," illustrates the location of the VAMC Fayetteville and its proximity to other resources in Fayetteville. Figure 1-2, "Aerial Photograph," provides an aerial view of the site in context with surrounding streets and neighborhoods.

1.3 Purpose and Need for Action

The Project is being proposed to resolve critical gaps for specialty and ancillary care, meet space capacity demands, provide veterans the necessary medical services and meet acceptable standards for access to care. The Clinical Addition would provide a full continuum of patient-centered one-stop quality health care for primary and specialty with supporting ancillary services.

The South Central VISN 16 provides services to the second largest number of veterans in the U.S. In 2003, VMAC Fayetteville alone treated nearly 40,000 patients. This figure represents more than twice the number of patients treated five years earlier. See Table 1-1, "Present and Projected Numbers of Annual Patient Visits." This dramatic increase in unique veterans is attributed to the continued population growth in the area and the increasing number of veterans who are turning to VA for most or all of their medical care in order to use VA pharmacy benefits. In 2004, VAMC Fayetteville was identified as incapable of meeting the healthcare needs of the growing veteran population within the guidelines established by the VA's Capital Asset Realignment for Enhanced Services (CARES). This need was based upon the facility's treatment capacity of 25,600. The current CARES Space and Function Survey based on patient

numbers from 2003 reflect a space deficit of 218,163 sf. At Project completion, the facility space will have the capacity to meet Projected growth needs through 2022.

The Medical Center has also exceeded its maximum operational capacity by handling 422,160 outpatient visits in 2007, an increase of 164,622 outpatient visits over the 2003 outpatient visits of 257,538. Outpatient capacity is set at approximately 300,000 visits annually. It is no longer possible for the facility to meet the needs of the growing veteran population and the VA's mandate for Specialty Care within 60 minute's drive time for urban and 90 minutes drive time for rural areas within the current available space. Meeting the services and specialty needs such as MRI are not possible. Services are either spread too thin or not available in the community. Traveling to numerous sites for veterans not familiar with the community is a hardship to the veteran. In addition, physicians in the community are resistant to some of the mandatory requirements related to the VA VetPro System of Credentialing and Privileging, therefore, outsourcing some of the services is a significant challenge. Providing a comprehensive set of services at Fayetteville VAMC also helps attract and retain physicians to this thriving small city.

Table 1-1
Present and Projected Numbers of
Unique Veteran Treated and Outpatient Visits

Year	Number of Unique Veterans Treated	Number of Outpatient Visits
1998	17,500	126,388
1999	19,681	142,858
2000	22,533	155,337
2001	27,358	180,169
2002	33,414	220,743
2003	38,613	257,538
2004	41,000	314,464
2005	42,942	350,394
2006	44,414	385,994
2007	-	422,160
2011 Projected	61,950	493,955
2026 Projected	52,151	555,887

Subsequently, this Project is included in the VISN 16 CARES Plan and the VISN 16 CARES Strategic Capital Asset Plan for 2005.

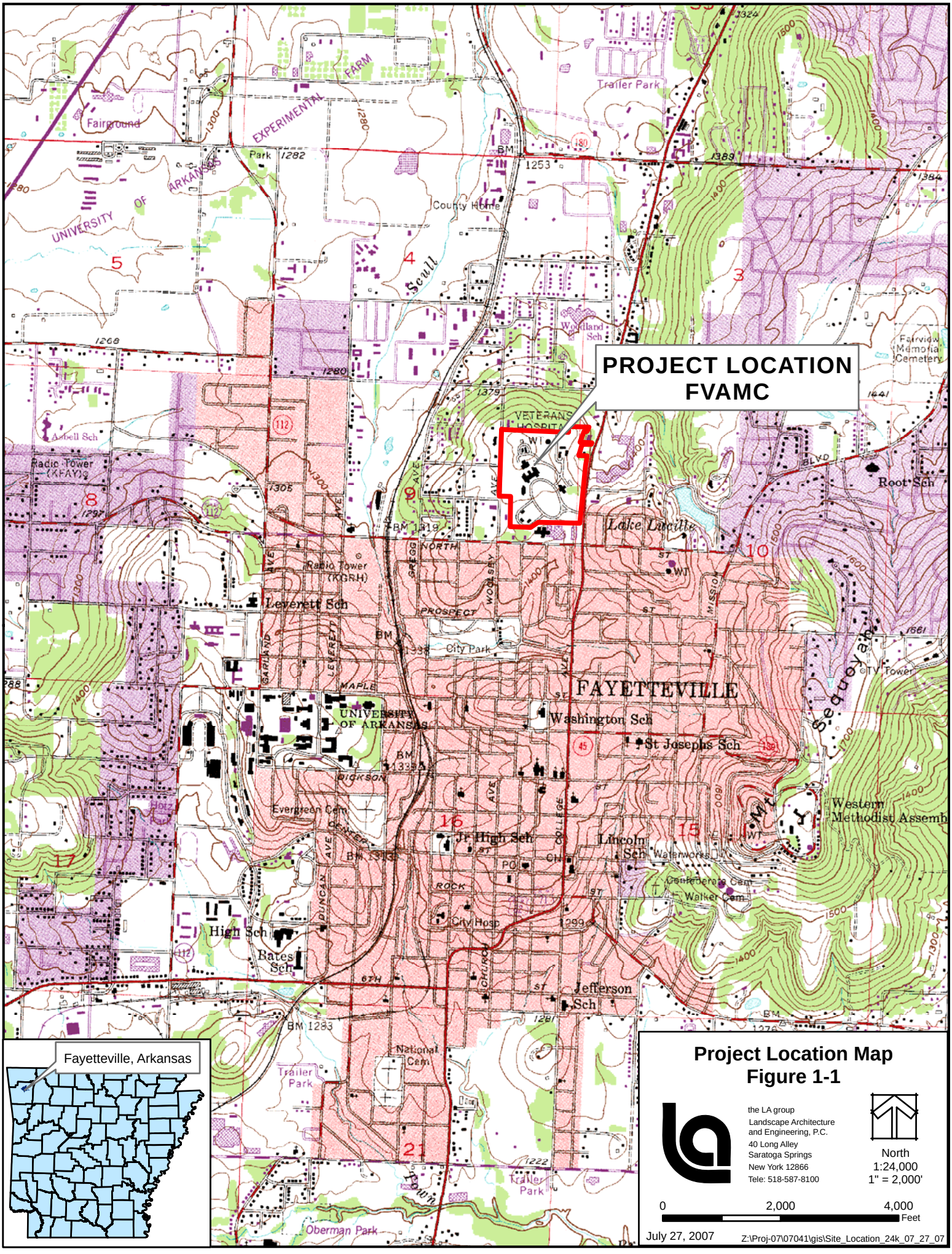
1.4 Assessment Methodology

The EA outlines the activities that would be associated with implementation of the Proposed Action and describes the Proposed Action (Section 2.0) and alternatives considered (Section 3.0). The EA characterizes the environmental features and resources that may be impacted during the implementation of the Proposed Action (Section 4.0). It also describes the potentially adverse environmental impacts from the Proposed Action and the No Action Alternative (Section 5.0). This analysis considers impacts that are expected to result from construction and routine

operations, and it examines the potential for cumulative impacts among related activities in the affected areas. This analysis weighs the impacts based upon the best available information utilizing impact identification, impact measurement, impact interpretation, and communication of impacts to users of the information.

1.5 Public Participation

NEPA promotes a decision making process that is open to the public. Public comments on the EA are solicited, encouraged and anticipated. To ensure that there are ample opportunities for the public to comment, VAMC Fayetteville will publicly announce the availability of the EA in the Springdale Morning News and the Northwest Arkansas Times newspapers. Hard copies will be made available at the Fayetteville Public Library and the VAMC. An electronic copy will be made available on the VAMC website. A comment period will be provided and all public comments will be considered. The Finding of No Significant Impact (FONSI) will document the findings regarding the Project. In accordance with VAMC policy, unless comments are received that necessitate a change to this EA, the present document will be considered final as of the end of the 30-day comment period.


PROJECT LOCATION
FVAMC
Fayetteville, Arkansas
FAYETTEVILLE
UNIVERSITY OF ARKANSAS
Washington Sch
St Josephs Sch
Jr High Sch
High Sch
Bates Sch
Jefferson Sch
Lincoln Sch
Leverett Sch
Root Sch
Lake Lucille
City Park
Trailer Park
Fairground
County Home
Evergreen Cem
National Cem
Oberman Park
Western Methodist Assemb
Project Location Map
Figure 1-1
the LA group
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40 Long Alley
Saratoga Springs
New York 12866
Tele: 518-587-8100
North
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1" = 2,000'
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2,000
4,000
Feet
July 27, 2007
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Aerial Photograph
Figure 1-2

the LA group
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and Engineering, P.C.
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New York 12866
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North

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July 10, 2007
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SECTION 2.0 DESCRIPTION OF PROPOSED ACTION

2.1 Site and Context

The VAMC Fayetteville campus is comprised of over twenty buildings clustered around a central oval lawn surrounded with mature landscaping on a rolling hillside. The site is organized into three zones:

- The Main Hospital (Building 1), Recreation Building (Building 3), and Administrative buildings facing the oval lawn. These were planned as the central focus of the campus and as buildings have been added or expanded over the years, this core of 1930's Georgian Colonial buildings have been preserved.
- The service buildings located in the northeast corner of the site consisting of Warehouse (Building 8), Laundry (Building 9), and Boiler Plant (Building 10).
- Staff and patient parking along the north, west and southeast portions of the site.

See Figure 2-1, "Existing Site Plan," for the layout of buildings and landscape elements on the site.

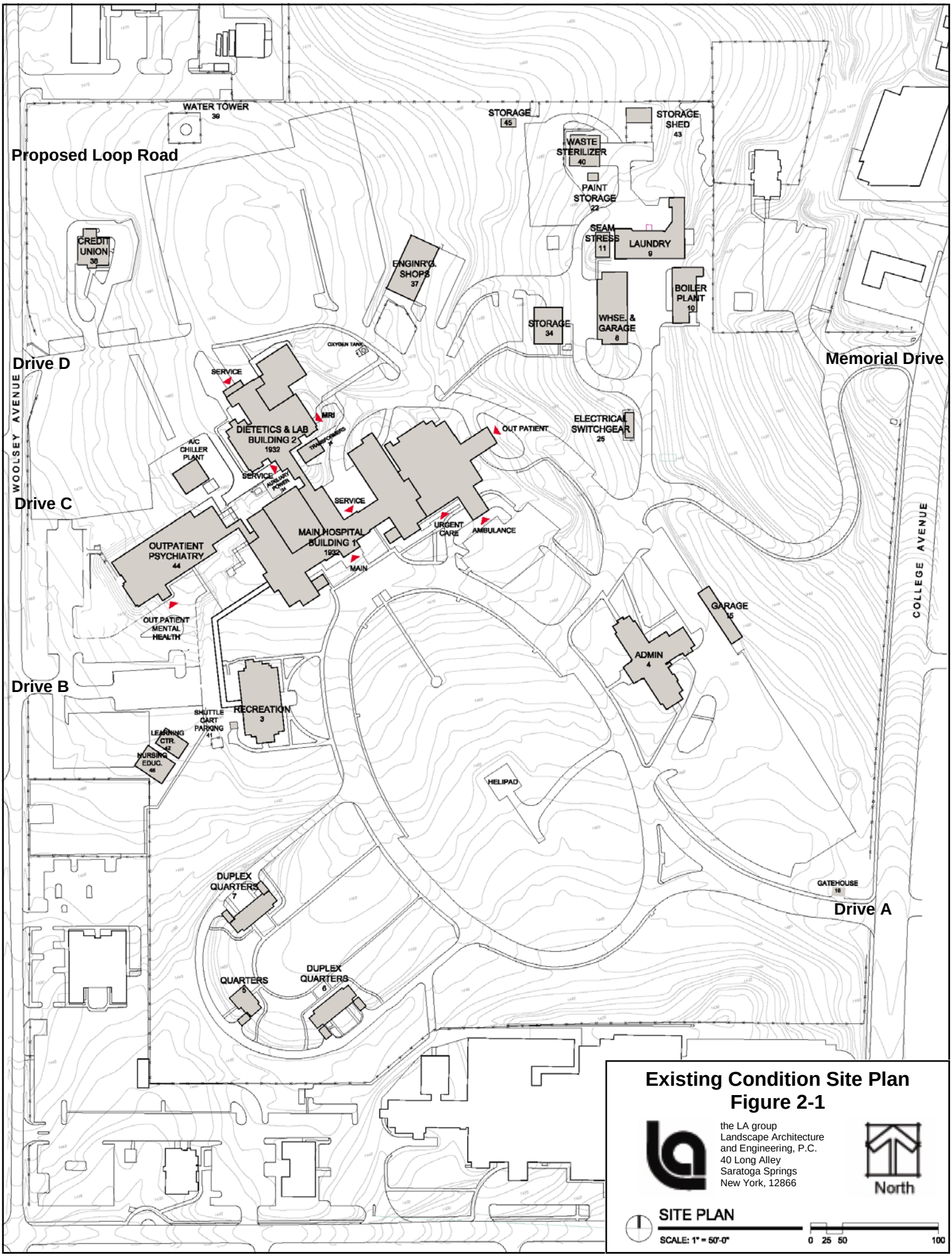
2.2 Description of the Proposed Action

2.2.1 Summary Project Description

The Proposed Action and subject of this EA is the construction and operation of a Clinical Addition and Renovations to the Fayetteville Arkansas Veterans Administration Medical Center. As discussed in Section 1.3 the main objective of the Proposed Action is for the VAMC to accommodate the growing health care demands of veterans within the South Central VA Health Care Network of VISN 16.

2.2.2 Space Programming Needs

The Clinical Addition would encompass approximately 119,136 design gross square feet (DGSF) for which 105,321 square feet (SF) is newly constructed space and 13,815 SF represents renovated space. New space would be primarily dedicated to Ambulatory Care/Specialty Clinics, Additional Clinic Modules, and Combined Imaging Services. The Project would also include the renovation of 13,815 SF of existing lab and pharmacy within Buildings 1 and 2. The proposed action also includes ancillary parking to be built around the proposed Clinical Addition and Renovations to accommodate the influx of new staff and patients. Table 2-1, "Space Programming Summary," indicates the number of square feet per department for the addition.



Existing Condition Site Plan
Figure 2-1

the LA group
Landscape Architecture
and Engineering, P.C.
40 Long Alley
Saratoga Springs
New York, 12866

North

SITE PLAN

SCALE: 1" = 50'-0"

0 25 50 100

Table 2-1
Space Programming Summary

Functional Areas	Proposed Program (Total DGSF)	Phase 1 Program (DGSF)	
		New Space	Renovated Space
Combined Cardiology	7,308	7,308	
Dental Clinic	6,970	6,970	
Eye Clinic	8,184	8,184	
Ambulatory Care/Specialty Clinics	21,502	21,502	
Additional Clinic Modules	10,000	10,000	
Combined Imaging Services	18,067	17,267	800
Clinical Laboratory	13,314	7,314	6,000
Outpatient Blood Draw/Collection	3,282	3,282	
Pharmacy	9,399	3,884	5,515
Physical Therapy	8,000	8,000	
Enhanced Lobby & Building Link	2,400	1,200	1,200
Social Work	2,418	2,418	
Outpatient Education	3,492	3,492	
New Service Entry (B-3rd Floors)	4,800	4,500	300
Total DGSF	**119,136**	**105,321**	**13,815**

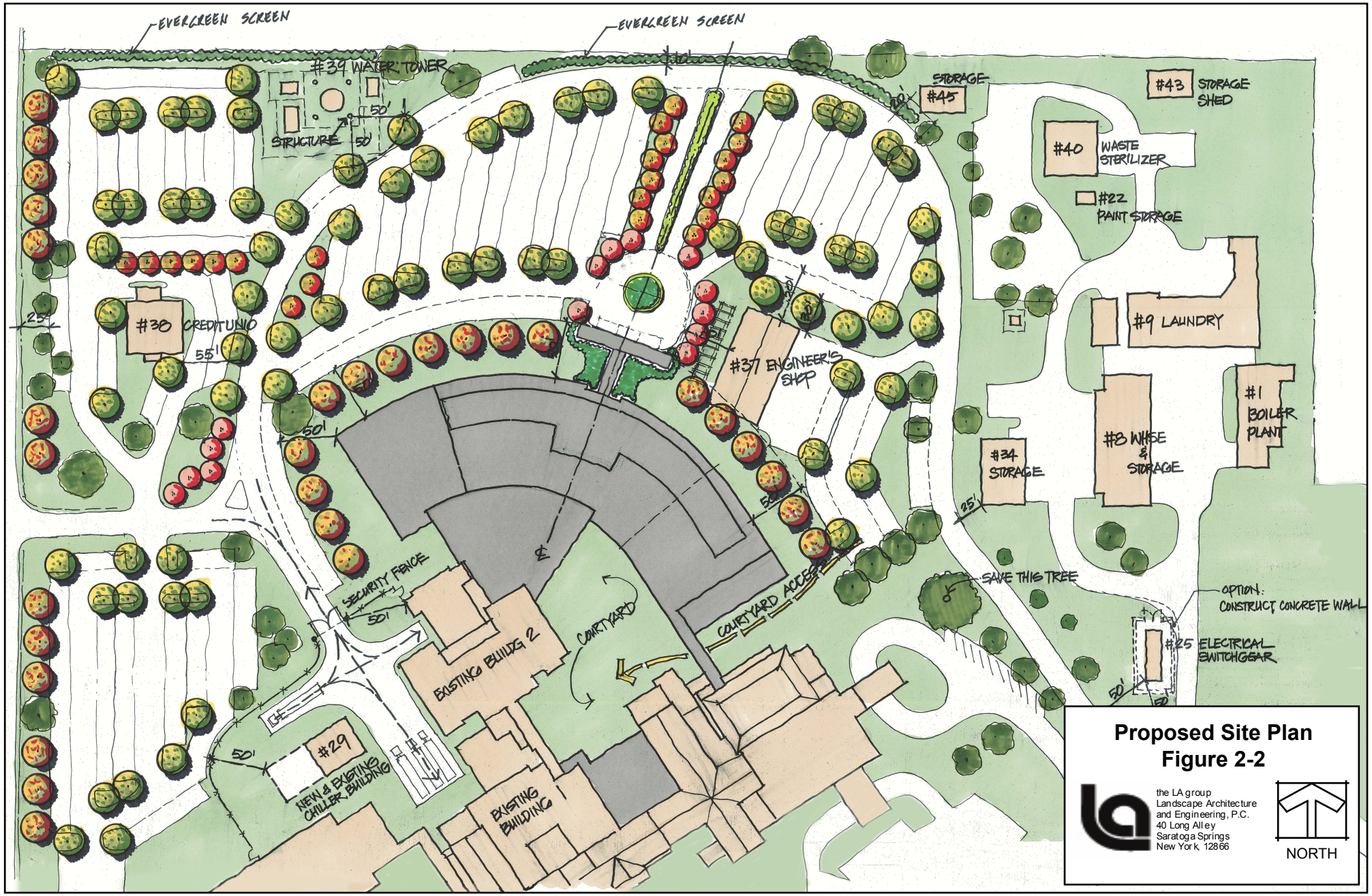
* MRI "back of house" area to remain as is. Source: CARES

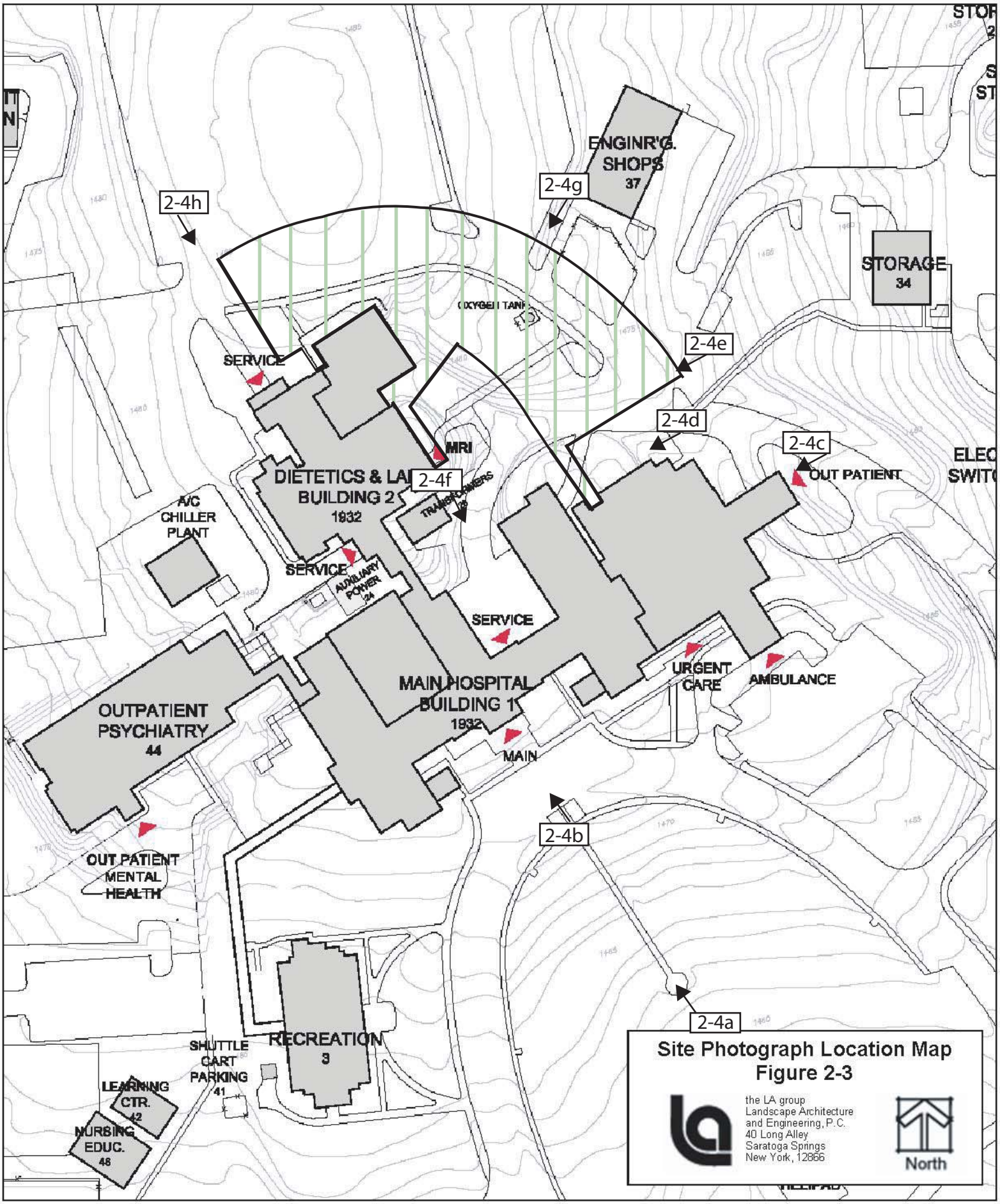
Figure 2-2, "Proposed Site Plan," illustrates the proposed Clinical Addition development plan, which includes the renovation of lab and pharmacy space, and development of additional parking areas and new courtyard.

Figure 2-3 "Site Photograph Location Map" illustrates the locations where site photos were taken. Figure 2-4a-h "Site Photos" consists of photographs that illustrate the existing character of the surrounding area to be impacted by the action.

2.2.3 Patient Workload

The Medical Center has also exceeded its maximum operational capacity by handling 422,160 outpatient visits in 2007 representing an increase of 164,622 outpatient visits over the 2003 level (257,538). Outpatient capacity is set at approximately 300,000 visits annually. The number of outpatients is directly related to the number of unique veterans that are treated at the facility. This number rose from 17,500 in 1998 to 41,000 in 2004.


EVERGREEN SCREEN
EVERGREEN SCREEN
#39 WATER TOWER
STRUCTURE
50'
50'
STORAGE
#45
#43 STORAGE SHED
#40 WASTE STERILIZER
#22 PAINT STORAGE
#30 CREDIT UNIO
55'
25'
#37 ENGINEER'S SHOP
#9 LAUNDRY
#1 BOILER PLANT
#8 WHSE & STORAGE
#34 STORAGE
50'
50'
25'
SECURITY FENCE
50'
EXISTING BUILDG 2
COURTYARD
COURTYARD ACCESS
SAVE THIS TREE
OPTION: CONSTRUCT CONCRETE WALL
#25 ELECTRICAL SWITCHGEAR
50'
50'
#29
NEW & EXISTING CHILLER BUILDING
EXISTING BUILDING
Proposed Site Plan
Figure 2-2
the LA group
Landscape Architecture
and Engineering, P.C.
40 Long Alley
Saratoga Springs
New York, 12866
NORTH


2-4h
2-4g
2-4e
2-4d
2-4c
2-4f
2-4b
2-4a
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SERVICE
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SERVICE
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AMBULANCE
MAIN HOSPITAL BUILDING 1 1932
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OUT PATIENT MENTAL HEALTH
RECREATION 3
SHUTTLE CART PARKING 41
LEARNING CTR. 42
NURSING EDUC. 46
ELEC SWITC
Site Photograph Location Map
Figure 2-3
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New York, 12866
North

Site Photos
Figure 2-4

Photo 2-4a – View looking north to Building 1 at Flagpole

Photo 2-4b – Building 1 Main Entry

Photo 2-4c – Primary Care Entry
(East Wing of Building 1 visible above)

Photo 2-4d – North East corner of Primary Care
(Building 2 visible at right, the OPC will occupy foreground area at the right)

Photo 2-4e – Area between Primary Care to be occupied by OPC Addition. (The "L" shaped paint mark in lower center of photo will be the southeastern corner of the Addition)

Photo 2-4f – Location of Pharmacy Addition. Rear of Building 1.

Photo 2-4g – View from walkway at Building 37.
(Circled white paint marks indicate location of addition exterior wall)

Photo 2-4h – View from parking lot (Circled paint mark indicates location of west wall of the addition).

2.2.4 Number of Workers

Table 2-2, "Existing and Projected Number of Employees," indicates that there are approximately 841 employees, staff and ancillary workers on the site on an average day. Once constructed, the Project is expected to generate approximately 280 new workers, the majority of which will be full time employees.

Table 2-2
Existing and Projected Number of Employees*

Number of Employees/Staff/Ancillaries	**Existing Number (2007)**	**Project Increase (2011)**	**Total Numbers**
Physicians (full time and part time)	57	26	83
Without Compensation Employees	8	-	8
Canteen Workers	6	6	12
Service Organization Employees	4	2	6
Volunteers	31	12	43
Medical School and Education Staff	2	-	2
Students	19	6	25
All Other Full-Time Employees	668	198	866
All Other Part-Time Employees	46	30	76
Total Persons on Campus	**841**	**280**	**1,121**

* Number of Employees/Staff/Ancillaries on a Typical Day.

2.2.5 Parking Resources

The Project will create a demand for additional parking for both employees and patients. The campus currently provides a total of 930 parking spaces for employees, patients, visitors and administration (source: VA Parking Summary dated 9/10/07). Based upon current parking needs, the facility needs 849 spaces, leaving an average daily excess of 81 spaces. The Project's construction will result in the net loss of 53 spaces. Parking demand will incrementally increase resulting in the need for 248 spaces in 2011, falling to 176 in 2026. Three new parking lots will be sited to address the expanded demand.

2.3 Construction Schedule

Construction of the proposed Clinical Addition and Renovations and utility connections is anticipated to begin in January 2009 and be operational by July 2011.

The construction of a 105,321 SF three-story brick building will include Specialty Clinics, Rehab, Imaging, Outpatient Testing, Cardio-Pulmonary, and additional Lab and Pharmacy space. Additionally, 13,815 SF of space will be renovated within Buildings 1 and 2.

2.4 Design Requirements

2.4.1 Site Design

The primary components of the site development plan are based on the planning goals established in the Master Plan phase. The Project development zone was defined by the desire to preserve the natural beauty of the campus, the integrity of the historic buildings, and the formal entry and main entrance to the facility. The Clinical Addition and Renovations is planned to the north of Buildings 1 and 2 thereby improving the layout, flow and organization of the campus. The following narrative provides a summary of the individual site components:

New Loop Road
A majority of parking is located on the northwest corner of the campus. Vehicles enter the site from two entrances - College Avenue to the east, and Woolsey Avenue to the west. The new loop road will ease traffic flow, enhance vehicular movement through the campus, and simplify wayfinding for patients, staff and service providers. Patient parking is located south of Building 4, which is serviced by a shuttle bus system.

Patient Drop Off
The main entrance to the new Clinical Addition and Renovations is a boulevard drive extending from the new loop road to a covered drop off. Adjacent to this area, a landscaped plaza with a trellis and benches is located adjacent to the drop off for patients and caregivers waiting to be picked up. The Purple Heart Memorial will be relocated to this plaza.

Service Entry
The existing service entrance is located in the area where the Pharmacy and Mechanical Room expansion is being planned. An expanded enclosed loading dock with service elevators will be constructed to the west of the link between Buildings 1 and 2, providing service to the existing buildings and the Clinical Addition.

Interior Courtyard
Internal circulation will be enhanced and simplified by orienting the primary public corridors towards the interior courtyard. This space is visible from each level of the Clinical Addition and Renovations and the natural light and internal orientation will enhance the patient experience.

Landscape Design
The VAMC Fayetteville campus is primarily comprised of mature native shade trees. New shade and ornamental trees that are proposed include Sugar Maples along the front façade, Japanese Zelkova lining the new drive, Northern Red Oak and Allée Elm for the parking islands, and Red Maple and White Oak along the perimeters of the parking lots. The utility areas will be screened with Loblolly Pine, White Pine, and Flowering Dogwood.

2.4.2 Architectural Design

The building massing and scale of the Clinical Addition and Renovations is designed to fit into the historical and architectural context of the VAMC Fayetteville campus. The simple elegance of the radial building form complements the existing hospital. The Project will create a new "face" on the north and northeastern sides of the Medical Center. The building mass will wrap around the back of the existing hospital creating a composition of staggered, perpendicular building additions which will be constructed in multiple phases over a number of years. Another benefit of the radial building is the flexibility it offers in creating an internal circulation "spine" with modular clinics. This simple plan can easily be expanded to the west when future growth for the facility is planned.

Although the Clinical Addition occupies four levels, it will be perceived as a two-story building with gabled roof elements. The lower level is partially below grade on the northeast side, and opens to the interior courtyard to the west. The third floor contains the Laboratory expansion and because it is set back from the front of the building, and behind the roof plane, it is not visible from the entry drive approach to the north.

The long curved façade of the Clinical Addition is divided into modules separated by a series of vertical window slots, which help to minimize the overall scale of the long façade, while establishing a rhythm relating to the scale of other campus buildings. The tops of the slots are emphasized by dormers with translucent glazing.

At a smaller scale, the exterior façade takes cues from the surrounding historical building context and employs several details to enrich the building's image. Examples include the pre-cast concrete coping at the top of the exterior wall, arched windows at the first floor, and rusticated brick courses at the base of the building.

2.4.3 Sustainable Design

The Clinical Addition will utilize environmentally friendly design and construction strategies outlined by the United States Green Building Council (USGBC) in its building rating system guidelines, Leadership in Energy and Environmental Design (LEED) for New Construction, Version 2.2.

The Office of Construction and Facilities Management (CFM) has instructed the design team to strive for a LEED Silver rating. If the Project is funded FY09, compliance with the LEED Silver rating is mandatory, based on requirements of the Sustainable Design and Energy Reduction Manual, issued by the VA in June 2007. The design team will follow these standards, but is not required to seek certification documentation from the USGBC.

LEED for New Construction (LEED-NC) 2.2 was written with office and retail buildings in mind, which makes some of the credits very difficult to achieve for a healthcare facility. The USGBC is planning to publish LEED for Health Care later this year. LEED for Health Care is

based on both LEED-New Construction and the Green Guide for Health Care (GGHC), published by the American Society for Healthcare Engineering (ASHE). In the cases where LEED-New Construction is not feasible for the Clinical Addition, the GGHC was referenced to determine if similar credits could be earned. These are credits that are not addressed in LEED-NC, but the GGHC leads the industry in defining sustainable design concepts and construction practices for healthcare.

2.4.4 Lighting

Site lighting will be designed to meet security lighting requirements and to satisfy the light pollution reduction requirements of LEED. Interior lighting will be designed to meet the watts/square foot requirements of ASHRAE 90.1 in order to satisfy the minimum energy performance requirements of LEED. Exit and emergency egress lighting will be designed to meet the requirements of NFPA 101 Life Safety Code. Lighting control strategies for the Project will include multilevel switching, occupancy sensors, and photocells.

2.4.5 Fire Protection

As specified in the VA fire protection design manual, the VA has adopted the National Fire Codes (NFC) published by the National Fire Protection Association (NFPA), which establishes a minimum acceptable level of life safety and property protection. The design team has used NFPA codes to base the design. For areas not covered by NFPA codes, the team applied requirements of the 2003 edition of the International Building Codes (IBC). Two fire protection systems will be installed and extended from existing buildings.

The new Clinical Addition will be attached to Building 1 (Primary Care) and Building 2. Building 2 is currently fully sprinklered with an existing diesel fire pump rated at 1,000 gpm at 100 psi. The new wet suppression system, which will feed the new Clinical Addition, will be an extension of the above ground piping system for Building 1 with separate control valves. It will also be fed from the fire pump. Proposed sprinkler zones are zoned to match up to smoke zones.

2.5 Routine Operations

2.5.1 Domestic Water

Existing service enters the site at the northwest corner of the property and extends to the boiler plant and back out to College Avenue. From the Boiler Plant water service extends to a private site loop connected to the water tank. The service line and private site loop lines that cross the northern portion of the site will need to be relocated due to grade changes created by the Clinical Addition. These lines can be relocated while still providing the existing facility with water service. The existing feed for the chillers will be connected to an existing line on the west side of the site. The line that runs under the facility will be removed. The main service to the site will need to be relocated in this area.

2.5.2 Sanitary Sewer

Existing mains run through the property from the north going south and along the east side of the new building. Service can be obtained through the existing on-site mains with an 8" sanitary sewer main extension to the new building. The extension will be in the service corridor extending into the courtyard area. The extension will not have any impact on existing facilities.

2.5.3 Gas Service

Gas service is already available on site that can service the facility. The existing gas service in Building #2 will need to be relocated in order to accommodate the Clinical Addition and site grading. The relocation and new building service will be relocated in the service corridor extending into the courtyard. The relocation will need to take place, early in consolidation, to maintain service to the existing hospital.

2.5.4 Stormwater Management

The existing stormwater system is presently at capacity, therefore, a new system will need to be installed and detention storage utilized in order to maintain existing system function. This will be accomplished initially with above ground methods. Should it be required, below ground storage will be utilized. A new detention pond will be developed adjacent to Buildings 10 and 25 on the eastern side of the property. The vegetated filter, detention pond, and bioswales will be utilized to filter water before entering the storm drainage system and leaving the site. The Project will have to comply with the Environmental Protection Agency's (EPA) National Pollutant Discharge Elimination System (NPDES), a comprehensive Phase II national permitting program. The program uses a permitting mechanism to require the implementation of controls designed to prevent harmful pollutants from being washed by stormwater runoff into local water bodies. Since the Clinical Addition will disturb an area of 10 acres, it will require the submittal of a Storm Water Pollution Prevention Plan (SWPPP) and a Notice of Intent (NOI) for review and coordination with the Arkansas Department of Environmental Quality before beginning construction. Stormwater management will be designed and coordinated by the civil engineer.

2.5.5 Power

Utility relocations during the first phase will be required to move lines from where the new Clinical Addition will be constructed, as well as revising feeds to the new electrical room entering the facility. These will include rerouting of sewer lines, water lines, electrical, telephone lines, etc. at the perimeter of the site as well as the new dock area and courtyard. Some phasing of utilities will be required to avoid disruption to the hospital.

The existing generators and fuel tanks will be temporarily moved to allow construction of the dock area and expansion of the chiller plant. VAMC Fayetteville is moving the existing oxygen tanks and manifold system out of the way of the new addition as a separate Project, which will be complete prior to start of Clinical Addition. The Chiller Plant is being expanded to house the new chillers for the addition and relocated generators. This will have to be expanded during the

first phase. Construction of a medium voltage generator plant is being considered to meet the VA Security Guidelines.

2.5.6 Construction/Demolition Waste Management

To ensure that environmentally sound waste management practices occur on the site during construction, the contractors will be required to submit a waste management plan within 15 days of contract award. This plan must meet VA Directive 0057 (VA Environmental Management System and Governing Environmental Policy), Executive Order 13148 (Greening the Government Through Leadership in Environmental Management). This Project's specific plan must be coordinated with waste management objectives for VAMC Fayetteville as a whole. Contractors must also make every effort to reduce overall construction and demolition waste by recycling materials whenever possible.

2.6 Safety and Security

2.6.1 Health and Safety

Adverse impacts to human health and safety may occur both during the construction and operational phases of the Project. The health and safety of construction workers and operational employees of the proposed Clinical Addition are protected by adherence to accepted work standards and regulations set forth by the Occupational Safety & Health Act (29 CFR 1910, and 29 CFR 1926, *Safety and Health Regulations for Construction*) and COMAR (09.12.20). All construction contractors and employees would be required to comply with these regulations.

The VAMC holds itself and its subcontractors responsible for the safety and health of employees and the communities in which they work. VAMC management's commitment to safety would include budgetary resources for safety training and certification for the employees and procurement of all necessary Personal Protective Equipment.

2.6.2 Fire Protection

As specified in the VA fire protection design manual, the VA has adopted the National Fire Codes (NFC) published by the National Fire Protection Association (NFPA), which establishes a minimum acceptable level of life safety and property protection. The design team has used NFPA codes to base the design. For areas not covered by NFPA codes, the team applied requirements of the 2003 edition of the International Building Codes. Two fire protection systems will be extended from existing buildings in a loop through the Clinical Addition.

The Clinical Addition will be attached to Building 1 (Primary Care) and Building 2. Building 2 is currently fully sprinklered with an existing diesel fire pump rated at 1,000 gpm at 100 psi. The new wet suppression system, which will feed the new Clinical Addition, will be an extension of the above ground piping system for Building 1 with separate control valves. It will also be fed from the fire pump in Building 1.

Similarly to the wet suppression system, the new fire alarm system will be an extension of Building 1's system. The VA currently has a Project to upgrade the existing fire alarm system throughout the campus, including systems in Building 1, 2 and Primary Care. This Project will upgrade the existing main fire alarm control panel of Building 1 to have enough capacity to accommodate all new fire alarm devices, including the emergency voice system for the Clinical Addition.

2.6.3 Site Security

The Clinical Addition will comply with the Final Draft of the Physical Security Design Manual for VA Facilities (June 2007). VAMC Fayetteville is designated a Mission Critical facility required to remain in operation during a natural or man-made extreme event. While the security strategies apply to the entire Medical Center campus, the following are key components of the physical security applied to the scope of Clinical Addition and Renovations Project:

- 50' setback distance for vehicles
- Anti-ram protection at the main entrance to the building
- Secured loading dock and interior courtyard
- Laminated glass in the main lobby
- Progressive collapse of the exterior column line and blast resistance
- Segregate public from non-public areas with wall, hardware, etc.
- Emergency generator capacity for four full days of operations
- Secured mechanical and electrical rooms
- Sprinklers in telecommunications closet
- Protect fire protection systems
- Separate HVAC system for lobby areas
- Access control hardware and intrusion detection system for the Loading Doc, Lab, Pharmacy, and all entrances and exits
- Positive air pressure for building
- CCTV at the parking lot, entrances and pharmacy
- Security lighting around building perimeter

SECTION 3.0 DESCRIPTION OF ALTERNATIVES

This section discusses the alternatives selection process and defines the alternatives that were considered in this EA. The implementing procedures for NEPA establish a number of policies for Federal agencies to follow in order to avoid or minimize the adverse effects of their actions. Among these policies is the use of the NEPA process to identify and assess reasonable alternatives to the Proposed Action that would avoid or minimize adverse impacts (40 CFR 1500.2(e)).

3.1 Alternatives Selection Process

A judicious review of five alternatives was conducted to ensure that the needs of the veterans were met and that taxpayers and government officials could be assured that the appropriations for this Project represent the best use of public funds. Alternatives considered included: no action, new construction of an addition on the existing facility, leasing of new off campus space, contracting for services with other off-site facilities, and the renovation of existing space.

3.2 No Action Alternative

VAMC Fayetteville would not construct and operate a Clinical Addition at its existing facility under the no action or status quo alternative. VAMC Fayetteville would continue to serve the increasing demands without the benefits of the new facility. Maintaining the status quo would mean escalating issues relating to the distribution and availability of services for veterans in the area of service. It means continuing with the same level of employees, a number of which are already over committed. All Projected CARES workload gaps would be contracted out to private providers. The VA's mandate of providing access to Specialty Care within 60 minutes drive time for urban areas and 90 minutes drive time for rural areas cannot be met within the current available space. This alternative does not meet the needs of the veterans, CARES requirements, or VA performance measures.

3.3 Preferred Alternative – New Construction of Clinical Addition

This alternative is the preferred alternative and represents the proposed action - the construction and operation of a new Clinical Addition to the existing Main Hospital Building on the VAMC Fayetteville campus. Details of the construction and operation of the new facility was presented in Section 2. Construction of the Clinical Addition is the most viable and economical alternative. It will provide the space resources necessary to correct the CARES gaps in specialty and ancillary services.

Implementing the Proposed Action would assist in meeting the VA Secretary's priorities and the President's management agenda by enhancing the quality of care while meeting the community standard of care. It will also satisfy all five goals of the Department of Veterans Affairs Strategic Plan including the objective to provide high quality, reliable, accessible, timely and efficient health care that maximizes the health and functional status of all enrolled veterans. The proposed Project is the most viable and cost effective alternative to meet CARES gaps in specialty and

ancillary services, thereby enhancing the facility's ability to provide the coordination and a continuum of care to meet the total health care needs of the veteran. A final consideration for this alternative is that the increase in specialty and ancillary services that will result from the construction will enhance the ability to recruit, develop, and retain competent, committed and diverse staff to provide the highest level of service for veterans and their families.

In summary, the benefits of construction of the Project will yield the following multiple benefits:

- Be constructed on land already VA owned;
- Provide one-stop medical care;
- Increase patient satisfaction;
- Improve patient privacy and enhance compliance with HIPPA;
- Enhance family support and involvement in care decisions;
- Improve continuity of care;
- Provide for more timely diagnosis;
- Improve efficiency in obtaining specialized care for veterans thereby reducing lengthy waits for care;
- Improve the role of the VA in response to emergency preparedness in the community by increasing the scope of specialty and ancillary services available;
- Decrease the delays in completion of Compensation and Pension examinations;
- Provide for same day consultation between Primary Care providers and Specialty Care providers;
- Increase the efficiency of the staff, as the Clinical Addition would provide at least two examination rooms per provider resulting in improvements in Advanced Clinic Access and provider satisfaction.

Alternative Construction Site Plans

Sets of reasonable alternative site configurations for the addition were considered. The criteria for guidance of these alternatives was the following:

- Parking should be in close proximity to entrances.
- The Project should meet Washington County Historical Society requests.
- A loop road should connect the College Avenue entrance to Woolsey Avenue.
- The natural beauty of the campus should be maintained.
- As many trees as possible should be retained.

The proposed project site is the only realistic area for new building development. Topography, available land, existing utilities, existing service entries, campus roads and drop-offs limit other areas of the site that could appropriately accommodate the Clinical Addition. The green space south of the Main Hospital Building has considerable historical value and is designated as a "no-build" zone by the VAMC.

Alternative configurations were considered with the consideration that the distribution of parking relative to patient entrances and services is poor. This situation often results in significant travel

distances and excessive elevation changes between patient parking and buildings. In addition, the site was selected with careful consideration of a logical and effective connection into Buildings 1 and 2, and for the creation of a unifying internal circulation link.

3.4 Leasing of New Space Off-Campus

Leasing of space off-site is costly and difficult to find the required amount of space in a single location. Leasing would result in additional patient travel, increased staffing, and duplicate services. Due to these reasons, this option was not considered viable.

Meeting the services and specialty needs such as MRI are not possible. Services are either spread too thin or not available out in the community. Traveling to numerous sites for veterans not familiar with the community is a hardship to the veteran. In addition, physicians in the community are resistant to some of the mandatory requirements related to the VA VetPro System of Credentialing and Privileging, therefore, outsourcing some of the services is a challenge.

3.5 Contracting Out Services

Contracting for needed services was considered not to be a viable option. Contracting would be cost prohibitive and detract from the overall purpose of the Project, which is to provide more comprehensive services including specialty and ancillary services to veterans. This alternative would result in negatively impacting services provided by VAMC Fayetteville. The following specific reasons led to the dismissal of this alternative; the Project would:

- Be most expensive;
- Increase time to get services completed;
- Increase diagnosis time;
- Decrease the ability to include family support and involvement in care;
- Decrease the ability to provide coordination and a continuum of care to meet the entire set of veteran needs including timeliness, access and quality;
- Decrease customer service, patient satisfaction and convenience;
- Not provide one-stop medical care for associated services;
- Not allow for instant consultation with clinical staff;
- Not assist in meeting critical staffing needs;
- Not provide equitable level of care to all veterans;
- Not result in a balanced level of quality, access, satisfaction, cost;
- Not optimize resources;
- Not result in centralized care and services;
- Not decrease care referred to tertiary care facility;
- Not support desirable outcomes;
- Not save equipment and FTEE services;
- Result in the duplication of services;
- Involve an increase in patient transportation;
- Result in a potential increase in contract costs;

- Result in a lack of cross-coverage and cross training;
- Lack in same incentives for recruitment and retention of qualified competent staff;
- Not be as user-friendly for the veteran.

3.6 Renovation of Existing Space

Renovation was considered as an alternative but not as a viable option since there is no vacant space to renovate. This project will consolidate and co-locate VAMC Fayetteville leased space for functions such as optometry, dental, home based primary care, medical care cost recovery, etc., back to the medical center campus. In addition, the following considerations that would limit the renovation and reuse of the existing facilities were identified:

- An absence of swing space within the existing Building 1 complex to permit phased renovation and reuse.
- The layout and functionality of the inpatient nursing units do not meet the VA's standards for space and privacy.
- The age, construction, floor-to-floor clearances and narrow double loaded wing design of the existing buildings is a barrier to effective and efficient reuse for modern health care delivery.
- The floor elevations between Buildings 1 and 2 do not align on the second and third floor, limiting integrated infill opportunities.
- Vertical circulation is outdated, undersized and inadequate in quantity.
- Compliance with current healthcare, life safety and other codes and regulations will be difficult and expensive. Some would not be possible.

SECTION 4.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This section addresses aspects of the environment that may potentially be impacted by the construction and operation of the Clinical Addition and Renovations at the Fayetteville VAMC. Each section describes the existing conditions and the potential environmental impacts on the natural and human environments. Appendix B, "Environmental Assessment Summary," was prepared in conformance with the Veterans Affairs Implementation requirements for the National Environmental Protection Act (Public Law 91-190 42 USC 4321-4347 January 1, 1990) and updates.

The analysis presented in this section considers direct, indirect, and cumulative impacts on the environment and potentially affected populations. The impacts described in this section may not necessarily occur, but they are considered reasonable possibilities. Impacts are categorized from most adverse to beneficial as follows:

Significant-and-unmitigable – A potential impact of this severity would preclude a Finding of No Significant Impact (FONSI) and would warrant the preparation of an Environmental Impact Statement (EIS).

Significant-if-not-mitigated – A potential impact of this severity would require specific mitigation measures to support the issuance of a FONSI. Such measures would be more stringent than those dictated by regulatory and permitting requirements and would be identified specifically in the impact analysis.

Minimal-to-moderate – A potential impact that is less than significant and would not require specific mitigation measures, other than those dictated by regulatory and permitting requirements, and would not preclude the issuance of a FONSI.

Non-to-negligible – A potential impact of this severity would be barely detectable and would readily support the issuance of a FONSI.

Beneficial – A beneficial impact represents an improvement in existing conditions and would support the decision-making process to proceed with the action or alternative.

4.1 Land Use and Zoning

Existing Conditions

The site is defined as the area of the VAMC campus that will be impacted by the proposed Clinical Addition and Renovations. Buildings 1, 2 and 29 are associated with the Project. Buildings 1 and 2 are part of the original 1932 construction at the facility, and Building 29 was constructed in 1983. The site is bordered to the north by an Army Reserve Center and a vacant wooded parcel owned by Washington County known as Gregory Park; to the south and east by VAMC; and to the west by VAMC open space and residential homes. Figure 4-1

"Neighborhood Photograph Location Map" illustrates the points where photographs of the adjacent neighborhoods were taken. Figure 4-2 "Neighborhood Photos" represents a series of twelve photographs taken of properties immediately adjacent to the Project site.


4-2l
4-2k
4-2j
4-2a
4-2c
4-2b
4-2h
4-2i
4-2g
4-2d
4-2e
4-2f
Neighborhood Photograph Location Map
Figure 4-1
the LA group
Landscape Architecture and Engineering, P.C.
40 Long Alley
Saratoga Springs
New York 12866
Tele: 518-587-8100
North
0
250
500
750
Feet
August 1, 2007
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Neighborhood Photos
Figure 4-2

Woolsey Avenue Photos

Photo 4-2a - View looking south opposite U.S. Army Reserve

Photo 4-2b - View looking west at Lawson Street

Photo 4-2c – View looking at main entrance on Woolsey Avenue

Photo 4-2d - View looking north on Woolsey Avenue

North Street Photos

Photo 4-2e – View looking east to College Avenue on North Street

Photo 4-2f – Intersection of North Street and College Avenue looking south.

College Street Photos

Photo 4-2g – View looking north at second VA entrance on College Avenue

Photo 4-2h – View opposite Main VA entrance on College Avenue

Photo 4-2i – Main VA entrance on College Avenue

Sycamore Street Photos

Photo 4-2j - View looking east on Sycamore Street towards College Avenue

Photo 4-2k – Sycamore Street at Gregory Park

Photo 4-2l – View looking south on Woolsey Avenue at intersection with Sycamore Street

According to records from the Washington County Tax Assessor's Office, United States Hospital owns the site. Historically, the campus was developed as a VA medical center since 1932 and remains serving the same purpose today. The site had 3 Quonset huts structures, which were built in 1954 and used for housing. These structures were razed in 1968. A former water tower, formerly present in the eastern portion of the site, was removed in the 1990's. The site is presently a parking lot.

The zoning classification for the VAMC Fayetteville campus and Gregory Park is Institutional (P-1). Zoning along either side of College Avenue is Commercial (C-2). The remaining adjacent neighborhoods that are north, west, south, and west of the C-2 district are in the Residential Single Family (RSF-4) zoning district. Figure 4-3, "Zoning Map," illustrates this information. The VA is not subject to local zoning regulations, however, they will need to conform to design standards of the City of Fayetteville for Access Drive, and for any new curb cuts along Woolsey Avenue.

Environmental Impacts

The land use of the site will shift from a parking lot to a building and associated parking, public space and green space. The site is a campus setting and the conversion of the area to be disturbed is consistent with land uses and zoning associated with the medical campus. Since the Project will result in overall improvements to the operations, access and internal circulation, the net impact on land use is *beneficial*.

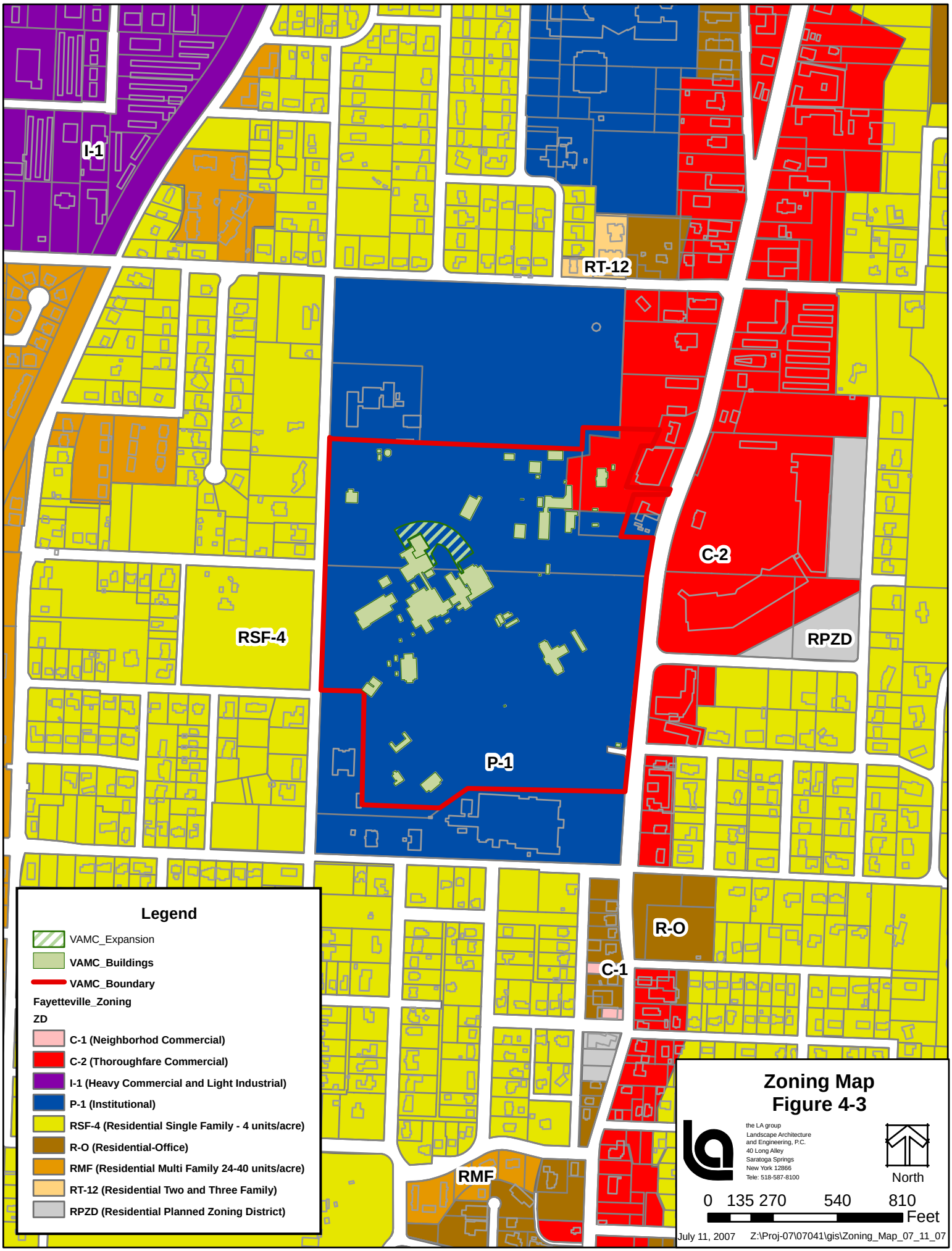
4.2 Climate

Existing Conditions

Northwest Arkansas is a mild climate while still experiencing four distinct seasons, with no extremes of hot or cold weather. Average annual temperature for Fayetteville, Arkansas is 59 degrees Fahrenheit (°F), while the average July high temperature is 89 °F and the average January low temperature is 24 °F. Fayetteville experiences an average rainfall of 45 inches, and an average humidity of 55%.

Environmental Impacts

The implementation of the Project would have a *none-to-negligible* impact on the regional climate.


I-1
RT-12
C-2
RPZD
RSF-4
P-1
R-O
C-1
RMF
Legend
VAMC_Expansion
VAMC_Buildings
VAMC_Boundary
Fayetteville_Zoning
ZD
C-1 (Neighborhod Commercial)
C-2 (Thoroughfare Commercial)
I-1 (Heavy Commercial and Light Industrial)
P-1 (Institutional)
RSF-4 (Residential Single Family - 4 units/acre)
R-O (Residential-Office)
RMF (Residential Multi Family 24-40 units/acre)
RT-12 (Residential Two and Three Family)
RPZD (Residential Planned Zoning District)
Zoning Map
Figure 4-3
the LA group
Landscape Architecture
and Engineering, P.C.
40 Long Alley
Saratoga Springs
New York 12866
Tele: 518-587-8100
North
0 135 270 540 810
Feet
July 11, 2007
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4.3 Topography

Existing Conditions

The site's elevation ranges from 1,470 feet to 1,480 feet above MSL Figure 4-4, "Site Topography Map" illustrates the campus's relatively flat topography in the southern portion in the location of the medical center. The remainder of the site's topography is gradual to steep slopes to the north, west, and east of the facility.

Environmental Impacts

Manmade topography on site will be modified to accommodate the Clinical Addition. The implementation of the Project would have a *none-to-negligible* impact on topography.

4.4 Geology

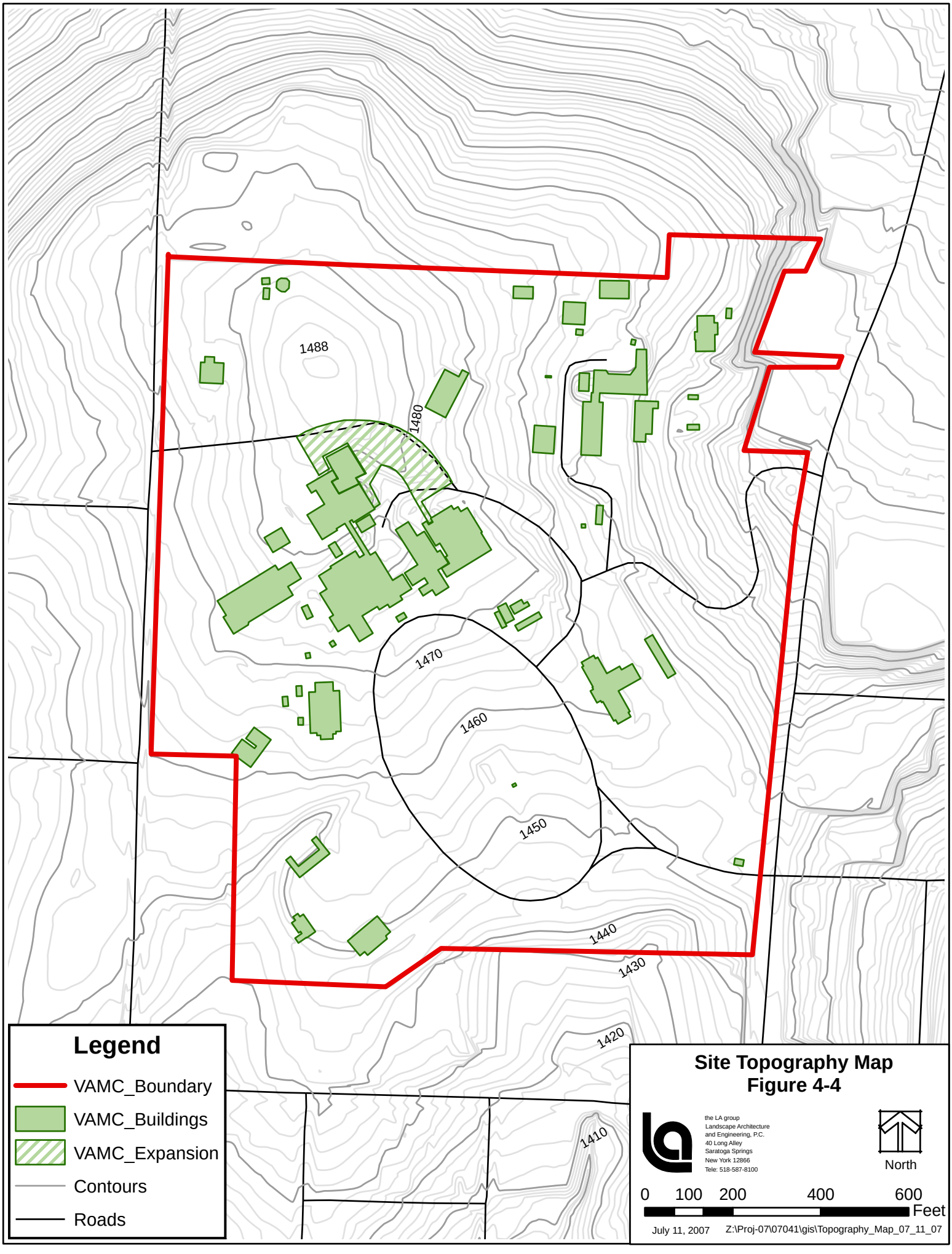
Existing Conditions

The Project site is in the mapped exposure of the Pennsylvanian Period Cane Hill Member of the Hale Formation. The Cane Hill Member comprises the base of the early Pennsylvanian Period Hale Formation. The Cane Hill is typically comprised of dark gray silty shale interbedded with siltstone and then bedded fine-grained sandstone. Some calcareous shale and sandstone units are present. The sandstone can occur as isolated thick to massively bedded units. The thickness of the Hale Formation, including the Cane Hill Member and the upper Prairie Grove Member is reported to be a few feet to 300 feet. The lower contact of the Cane Hill on the underlying Fayetteville Shale Formation marks the Pennsylvanian-Mississippian boundary in northern Arkansas.

The Mississippian Period Fayetteville Shale Foundation consists of beds of black carbonaceous shale with varying beds of sandstone and occasional limestone. Near the top of the formation is the Wedington Sandstone member. The sandstone is typically dense and hard, gray to brown and fine-grained. It can be slightly to moderately calcareous. The beds typically display ripple marls and vary in thickness. The Fayetteville shale is highly variable in thickness with measured extremes of 10 and 400 feet. The formation is conformable on the Batesville Sandstone.

A Geological Investigation was performed to assess subsurface conditions at the site of the addition and to develop recommendations to guide design and construction. The multi-phased study including:

- Drilling sample borings to explore subsurface soil, rock and groundwater conditions and to obtain samples for laboratory testing,
- Performing laboratory tests to determine pertinent engineering properties of the foundation and subgrade strata, and
- Analyzing the field and laboratory data to develop recommendatiosn for foundations, floor slabs, below-grade walls, retaining walls, pavements, site grading and construction criteria.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Legend
VAMC_Boundary
VAMC_Buildings
VAMC_Expansion
Contours
Roads
Site Topography Map
Figure 4-4
the LA group
Landscape Architecture
and Engineering, P.C.
40 Long Alley
Saratoga Springs
New York 12866
Tele: 518-587-8100
North
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Feet
July 11, 2007
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The Washington County, Arkansas site is located in Seismic Zone 1, defined by the Arkansas Building Authority (2005) as the zone of least seismic potential.

Environmental Impacts

Foundations for the Project must satisfy two basic and independent design criteria. First, the maximum bearing pressure must not exceed the allowable bearing pressure based on an adequate factor of safety with respect to shear strength. Secondly, foundation movements resulting from consolidation, shrinking or swelling of the supporting soils must be within tolerable limits for the structure. Construction factors such as foundation construction, extraction procedures, and surface and groundwater conditions must also be considered.

Significant site and subsurface conditions to design and construction of the Project are:

- The undulating site terrain with significant vertical relief and variable surface water drainage;
- The presence of existing structures and numerous underground utilities in the Project area;
- The ground surface with a pavement or organic landscape cover;
- The variable plasticity of the surface and near-surface soils with some highly-plastic clay and weathered shale locally present;
- The generally moderate shear strength and low compressibility of the near-surface clayey sand and sandy clay and the very soft to soft sandstone.
- The variable depth of 1.5 to 8 feet to the very soft to hard sandstone as well as the presence of sandstone seams and layers in the clayey sand/sandy clay strata;
- The very soft to medium soft weathered shale at 2 to 25 feet below existing grades; and
- The variable groundwater levels measured at 4 to 24 feet in October 2006 and the potential for seasonal seeps and springs as well as variations in groundwater levels and amounts.

All geotechnical issues related to the construction of the Project are addressed in the Geotechnical Investigation in Appendix C. The impacts to geology would be *none-to-negligible*.

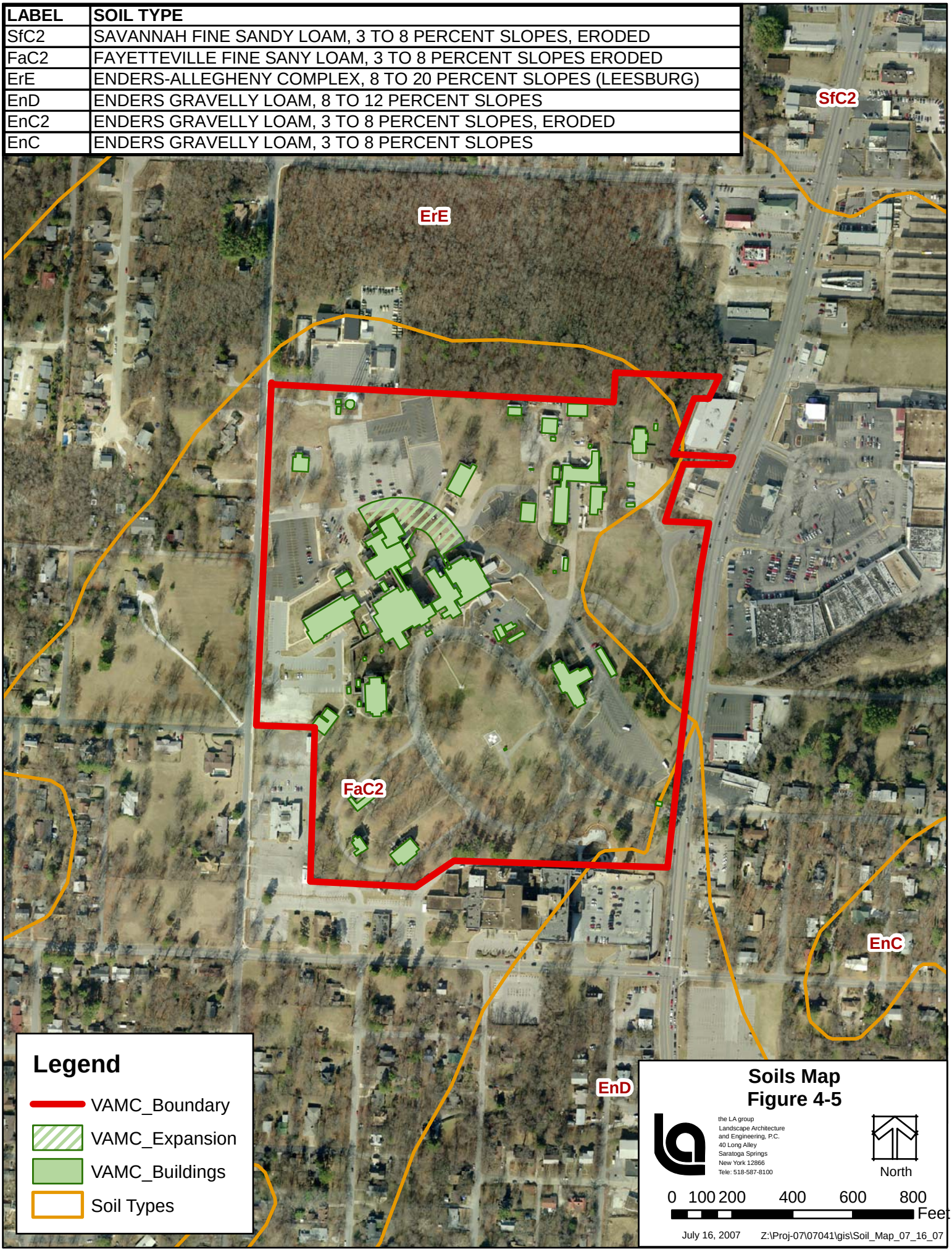
4.5 Soils

Existing Conditions

Fayetteville is located on the divide between the White River watershed, south and east of the city with soils derived from the Boston Mountains Plateau, and the Illinois River watershed, north and west of the city with soils derived from the Springfield Plateau.

The soil types that were identified near the Project site include Savannah fine sandy loam, Fayetteville fine sandy loam, Enders-Allegheny Complex, and Enders gravelly loam. Of these, only Fayetteville Fine Sandy Loam was identified at the Project site. According to the United States Department of Agriculture's Soil Survey of Washington County date March 1969 Fayetteville Fine Sandy Loams consist of deep, well-drained soil found on a three to eight percent slope that occurs on hilltops. Figure 4-5, "Soils Map," presents soils information for the site and surrounding area.

LABEL	SOIL TYPE
SfC2	SAVANNAH FINE SANDY LOAM, 3 TO 8 PERCENT SLOPES, ERODED
FaC2	FAYETTEVILLE FINE SANY LOAM, 3 TO 8 PERCENT SLOPES ERODED
ErE	ENDERS-ALLEGHENY COMPLEX, 8 TO 20 PERCENT SLOPES (LEESBURG)
EnD	ENDERS GRAVELLY LOAM, 8 TO 12 PERCENT SLOPES
EnC2	ENDERS GRAVELLY LOAM, 3 TO 8 PERCENT SLOPES, ERODED
EnC	ENDERS GRAVELLY LOAM, 3 TO 8 PERCENT SLOPES



Environmental Impacts

The site has been previously disturbed, therefore, implementation of the Project would have a *none-to-negligible* impact on the soils. The potential for erosion and topsoil loss will be minimized through the use of Best Management Practices, the SWPPP, and monitoring during site grading, subgrade preparation, and foundation and pavement construction.

4.6 Water Resources

4.6.1 Surface Water

Existing Conditions

There are no surface water resources on the VAMC Fayetteville site. There is one small pond on the adjacent site down gradient to the north in Gregory Park. The nearest substantial water body is Lake Fayetteville located in Veterans Memorial Park, approximately four miles of the site. Several small creeks are located one-half mile east and west of the site.

Environmental Impacts

Surface drainage on the site is considered fair to good. Stormwater collecting on the site is absorbed into the ground or flows across pavement into the facility's stormwater conveyance and then into the municipal stormwater sewer system. Implementation of the project's proposed stormwater mitigation strategy will decreased peak load impacts to the municipal system. The impacts to surface water would be *none-to-negligible*.

4.6.2 Groundwater

Existing Conditions

The groundwater level in the Fayetteville region is approximately 80-200 feet below the ground surface, with some areas as deep as 300 feet below surface level. Groundwater supply is generally dependable and of good quality; however, water is moderately hard and high in iron in localities. Water quality is relatively high at the upper end of the White River and Illinois River watershed; however water quality decreases progressively downstream as a result of agricultural run-off, livestock wastes and wastewater treatment plant discharges. There are few, if any, ground water wells within the city limits.

Based on local topography, groundwater on the site should move in an easterly direction at an estimated depth of 25-50 feet. Local features may influence groundwater flow direction.

Environmental Impacts

No impacts on groundwater are anticipated as a result of the proposed Clinical Addition expansion. All geotechnical issues related to the construction of the Project are addressed in the Geotechnical Investigation found in Appendix C. The impacts to groundwater would be *none-to-negligible*.

4.6.3 Floodplains

Existing Conditions

According to the Environmental Data Resources (EDR) report and examination of FEMA floodplain mapping, the site is not in an area that is subject to flooding.

Environmental Impacts

The impacts to floodplains would be *none-to-negligible*.

4.6.4 Wetlands

Existing Conditions

Examination of ACOE mapping and state wetland mapping indicates there are no wetlands present on or nearby the Project site.

Environmental Impacts

The impacts to wetlands would be *none-to-negligible*.

4.7 Biological Resources

Existing Conditions

Section 7 of the Endangered Species Act (ESA) directs all Federal agencies to participate in endangered species conservation and ensure that their activities are not likely to jeopardize the continued existence of listed species or adversely modify designated critical habitats. An information request was filed US Fish and Wildlife Service –Arkansas Field Office and the Arkansas Natural Heritage Program for the records relating to threatened or endangered species occurring on or adjacent to the VAMC Fayetteville site from the (see Appendix A, "Agency Coordination Letters").

In a letter dated July 31, 2007 (Appendix A), the USFWS reported the following endangered species are known to occur in Washington County: gray bat (Myotis grisescens); Indiana bat (Myotis sodalist); Ozark big-eared bat (Corynorhinus townsendii ingens); Missouri bladderpod

(Physaria filiformis); and the Benton cave crayfish (Cambarus aculabrum). The Arkansas darter (Etheostoma cragini) and Neosho mucket (Lampsilis rafinesqueana) are two species that are candidates for the list in Washington County.

Environmental Impacts

The USFWS determined that the Project will not likely adversely affect the listed species as long as the site is surveyed for karst (a distinctive topography in which the landscape is shaped by dissolving action of water on carbonate bedrock) features such as caves, springs, sinkholes, and losing streams prior to initiation of Project activities. If such feature is found, the USFWS should be contacted for an onsite karst evaluation. A geotechnical survey of the site found that there are none of these features on or near the site, therefore, the impacts to biological resources would be *none-to-negligible*.

The VA has completed consultation and has no further ESA obligation under section 7(a)(2).

4.8 Air Quality

4.8.1 Regional Air Quality

Existing Conditions

Air quality in Washington County is regulated by the State of Arkansas Department of Environmental Quality (ADEQ), which administers Federal and state air quality standards. The Clean Air Act (CAA) charged the U.S. Environmental Protection Agency (EPA) to generate National Ambient Air Quality Standards (NAAQS) to control common pollutants including sulfur dioxide ($S0_2$), particulate matter (PM_{10}, $PM_{2.5}$), nitrogen oxides (NO_x), carbon monoxide (CO), ozone (O_3), and lead (Pb).

Under these standards, a geographic location with pollutant levels below NAAQS is said to be in "attainment," while higher levels are in "nonattainment," and must devise a plan to reduce emissions. A location may be in attainment for a particular pollutant, but nonattainment in another. Washington County is in an area presently designated as attainment or unclassified for all criteria pollutants.

The VAMC does not operate an on-site waste incinerator that would contribute to air quality issues.

Environmental Impacts

During Construction fugitive dust emissions are the primary cause for air quality degradation; however, adverse impacts from land disturbance activities would be temporary and of minimal severity. Adverse air quality impacts will be minimized through the use of Best Management Practices as addressed in site clearing and erosion control specifications.

Additional construction-related activities that would impact air quality are construction worker traffic, usage of heavy construction vehicles/equipment, usage of paints for building interior and parking lot, and usage of diesel generators as a power source. Emissions during construction would be minimal as the incremental increase of total emissions would be relatively minor, and furthermore temporary.

During the operational phase of the Clinical Addition, activities that would impact air quality include increased employee and visitor vehicles, potential use of a diesel-powered emergency generator during weekly testing and power outages. Air quality impacts will be minimized by adhering to LEEDS standards for the use of low-emitting materials for adhesives and sealants, paints and coatings, carpet systems and composite wood and agrifiber products. In addition, indoor chemical and pollutant source control will be met by installing a permanent entryway system to capture dirt and particles. All areas with hazardous gases or chemicals will be exhausted. All building filtration will be provided with a minimum efficiency reporting value (MERV) of 13.

The impacts regional air quality resources would be *none-to-negligible*.

4.9 Cultural Resources

4.9.1 Historic Issues

Existing Conditions

Under Section 106 of the National Historic Preservation Act of 1966, as amended, federal agencies must identify and evaluate cultural resources and consider the impact of undertakings they fund, license, permit, or assist on historic properties eligible for inclusion in the National Register of Historic Places. NEPA therefore requires the VAMC Fayetteville to consult with the director of the Department of Arkansas Heritage (Arkansas State Historic Preservation Officer and the Advisory Council on Historic Preservation) on historic and archeological resources.

According to a letter of "no affect" from the Arkansas Historic Preservation Program, there are no known archeological resources on the Project site (see Appendix A, Letter from Clothier to McCloskey dated July 3, 2007). There are 11 buildings and 3 places on site that are listed as historic. Figure 4-6 "Historically Significant Campus Buildings" illustrates the individual locations of the historically significant campus buildings on the Project site and Table 4-1 lists these sites.

VAMC Fayetteville was constructed between 1932 and 1942. The original campus buildings were constructed in the Georgian Colonial Revival style. This style was carried through to the staff and director's quarters, as well as engineering and support buildings. The campus and many of the buildings have significant historical value. Of particular importance is the central area of the campus south of Building 1 (Main Hospital Building). This area includes the circle drive, green space, residential area, and Building 1 façade. Given its historic nature, development in this area is not considered an option by the Design Team.

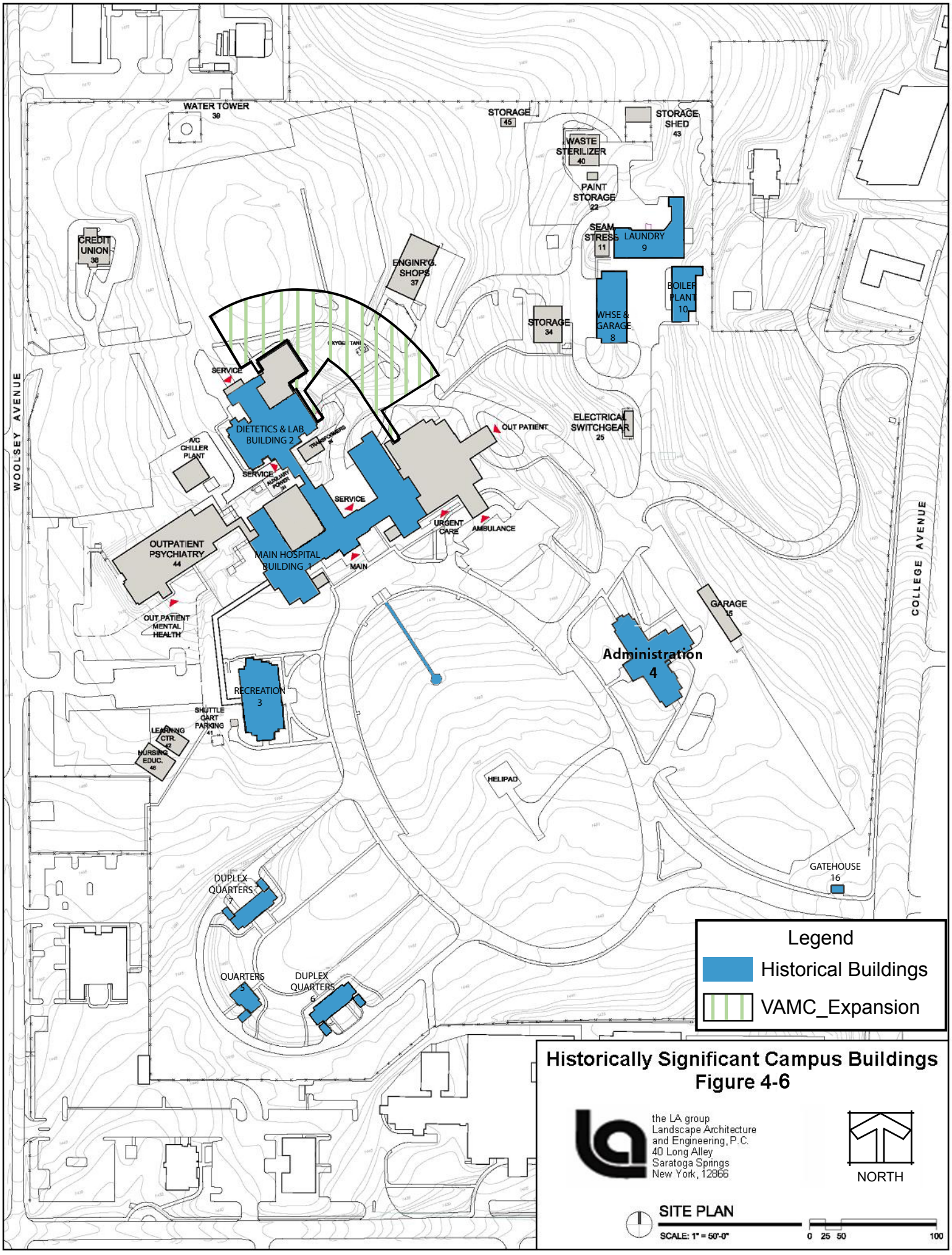
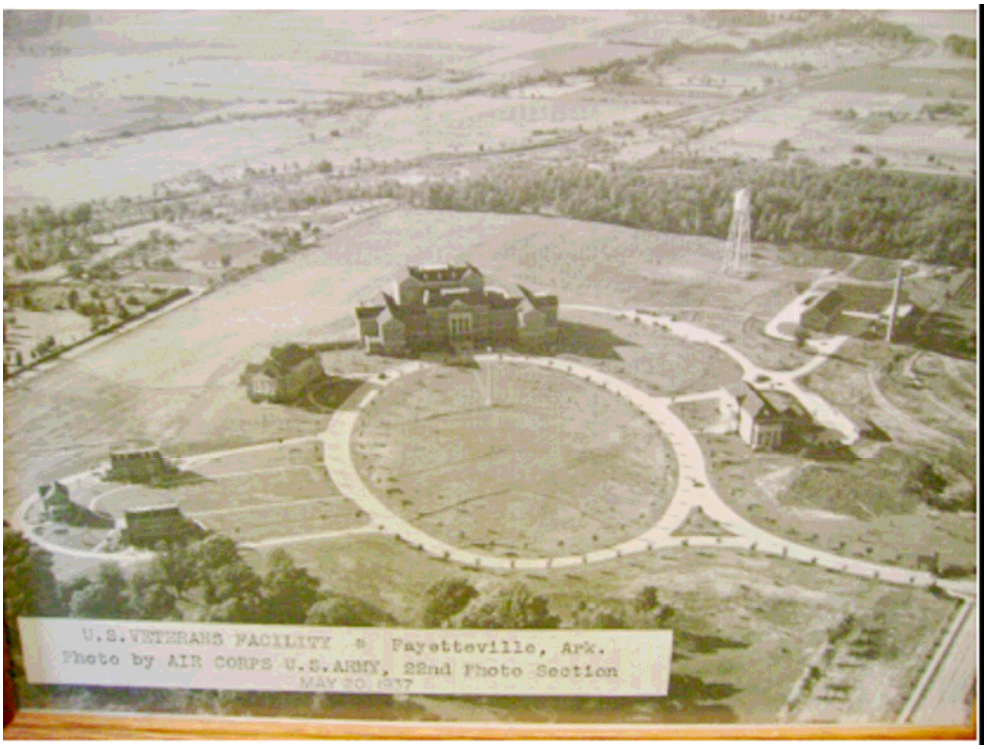

WOOLSEY AVENUE
COLLEGE AVENUE
WATER TOWER 39
STORAGE 45
STORAGE SHED 43
WASTE STERILIZER 40
PAINT STORAGE 22
SEAM STRESS 11
LAUNDRY 9
CREDIT UNION 38
ENGINR'G. SHOPS 37
BOILER PLANT 10
WHSE & GARAGE 8
STORAGE 34
ELECTRICAL SWITCHGEAR 25
SERVICE
DIETETICS & LAB BUILDING 2
A/C CHILLER PLANT
OUT PATIENT
SERVICE
SERVICE
URGENT CARE
AMBULANCE
OUTPATIENT PSYCHIATRY 44
MAIN HOSPITAL BUILDING 1
MAIN
OUT PATIENT MENTAL HEALTH
GARAGE 15
Administration 4
RECREATION 3
SHUTTLE CART PARKING 41
LEARNING CTR. 42
NURSING EDUC. 48
HELIPAD
GATEHOUSE 16
DUPLEX QUARTERS 7
QUARTERS 5
DUPLEX QUARTERS 6
Legend
Historical Buildings
VAMC_Expansion
Historically Significant Campus Buildings
Figure 4-6
the LA group
Landscape Architecture
and Engineering, P.C.
40 Long Alley
Saratoga Springs
New York, 12866
NORTH
SITE PLAN
SCALE: 1" = 50'-0"
0 25 50 100

Table 4-1
Historically Significant Campus Buildings

Building Use	Building Number	Date
Main Entrance Gate	0	1940
Original Entrance Gate and Wall Section	0	1890
Main Hospital	1	1933
Dining Hall	2	1933
Recreation Hall	3	1933
Engineering Office	4	1933
Manager's Quarters	5	1933
Duplex Quarters	6	1933
Duplex Quarters	7	1933
Storehouse and Garage	8	1933
Laundry and Shop	9	1933
Boiler House	13	1933
Gate House	16	1933

Figure 4-7
1937 Aerial Photograph



Environmental Impacts

A survey of the site found that there are a number of historically significant buildings or features on the site. None of the historic buildings are proposed for demolition. The Project development zone was defined by the desire to preserve the natural beauty of the campus, the integrity of the historic buildings, and the formal entry and main entrance to the facility. The exterior finish materials, building and window proportions, and articulation of details are derived from the historical context of the original campus buildings. The Clinical Addition blends the architecture of Buildings 1 and 2 and consolidates this building complex. No historically significant buildings or historic districts are located off the campus in the adjacent neighborhoods.

The impacts on historical resources would be *significant-if-not-mitigated* through Project design. Appendix A contains a letter from the Department of Arkansas Heritage dated September 12, 2007, stating that although Buildings #1 and #2 are eligible for listing in the National Register of Historic Places, they believe that there will be no adverse effect on the eligible structures.

4.9.2 Archeological Issues

Existing Conditions

There are no federally recognized Indian tribes or reservations in Arkansas today. Most Native Americans were forced to leave Arkansas during the Indian Removals of the 1800's. These tribes are not extinct, but except for the descendants of Arkansas Indians who escaped from Removal, they do not live in Arkansas today. The most significant tribe that may have impacted the lands of northwestern Arkansas is the Osage Nation. The U.S. government took Osage lands in Arkansas and Missouri in the early 1800's. An Osage reservation was established in southeastern Kansas in 1825. Today, most of the 10,000 Osage Indians live in and around Pawhuska, Oklahoma. Consistent with Executive Order 13084 of May 14, 1998, the VA sought meaningful input from the Osage Tribal Council regarding the construction of the Clinical Addition (see letter dated September 14, 2007 from Medical Center Director Fogarty to Principal Chief Gray in Appendix A). To date, no response to the letter has been received.

Environmental Impacts

The impacts on cultural resources would be *none-to-negligible*.

4.10 Socioeconomics

Existing Conditions

The VAMC Fayetteville is largely a college town located in the northwest corner of Arkansas. The City serves as the Washington County seat and approximately 40 percent of County residents live in the City of Fayetteville. With an estimated population of 66,655 in 2006, Fayetteville is the third most populous city in the state. This represents a rise of 13.26 percent

over the 2000 official population and 5.7 percent of the population gain realized in the state (US Census Bureau – Special Census). Statistics for the Fayetteville Metropolitan Statistical Area (MSA), comprised of the cities of Fayetteville, Springdale, and Rogers, indicate population growth 3.5 times the growth rates of the US and 13.2 times more than the State of Arkansas from 1990 to 2000 (2005 American Community Survey). The rapid growth rate that is being experienced within the MSA equates to approximately 1,000 new residents per month. Fayetteville was named as one of the best places to live in America by Money Magazine and ranks #7 on Forbes 2005 list of "Best Places for Business and Careers." This MSA represented the sixth fastest growing MSA in the nation between 2000 and 2005.

In 2000 the U.S. Census Bureau reported the City of Fayetteville had a population of 58,407 with a veteran population of 4,526. In 2005 the population of Fayetteville rose to 58,839, just a 0.7 percent increase in total population. In 2000 the veteran population in Fayetteville constituted 7.7 percent of the total population. However in 2005 the veteran population rose to 4,771 for an increase of 5.1 percent in veteran population comprising 8.1 percent of the total population. Of these veterans 35.8 percent are older than 65. In comparison from 2000 to 2005, Washington County experienced a 9.2 percent increase in total population and a 9.5 percent decrease in veterans. The state of Arkansas' total population rose 7.4 percent and the veteran population decreased 7.7 percent from 2000 to 2005.

Washington County in 2005 had an employed civilian labor force of 89,455, a 6.4 percent increase from 2000. The county's unemployment rate in 2005 was 4.3 percent, which is well below the state unemployment rate of 5.1 percent. Manufacturing is the largest industry employer with nearly 15% of the workforce in 2005. Other dominant industries include retail trade (13.6%), education (12%) and healthcare (9.5%). Fayetteville MSA represents the 4th fastest MSA for job growth in the U.S. Median household earnings in Washington County in 2005 were $39,861which is more than $5,000 above the Arkansas median of $34,999.

Environmental Impacts

There are approximately 841 existing employees, staff and ancillary workers on the site on an average day. Table 2-2, "Existing and Projected Number of Employees," indicates that once constructed, the Project is expected to generate approximately 280 new workers, most of which will be full time employees/or equivalent.

The construction and operation of the Clinical Addition would provide several beneficial impacts for Fayetteville and the surrounding area. The expansion would provide construction related work for local vendors and contractors and provide additional jobs for the area. The improvements at the facility will increase the number and diversity of services available to veterans in the service district. This may have the impact of drawing veterans closer to the region. This may have the capacity of further stabilizing the City's population, improving the availability of medical services, and creating additional associated support services and businesses, and stimulating economic development.

The proposed addition will have a net *beneficial* impact on local and regional socioeconomic conditions.

4.11 Noise

Existing Conditions

The Fayetteville VAMC is considered a relatively quiet environment with no significant noise emitters. Minor source of noise at the VAMC include the chiller plant (Building 29), the boiler plant (Building 10), normal vehicular traffic going through the site and along the adjacent roadways including Woolsey Avenue and College Avenue.

The construction Project is subject to noise limitations specified for industrial zones for the period of time allowed by the building permit. The Fayetteville Noise Control Ordinance limits maximum noise levels to 80 db (A) from 7 a.m. to 11 p.m., which includes the normal construction hours. The nighttime noise control ordinance limits noise to 75 db (A) from 11 p.m. to 7 a.m.

The resulting noise levels at the Project site are short-term and temporary and do not currently pose any health hazards.

Environmental Impacts

Increases in noise levels would occur in the immediate vicinity of the proposed Clinical Addition during the construction phase. However, adherence to appropriate OSHA standards would protect the workforce from excessive noise (29 CFR 1926.52). Noise impacts during construction of the proposed Clinical Addition would be short-term in duration and limited to daytime hours. Since construction related noise impacts are temporary in nature and would not expose people residing or working in the area to severe noise levels, the impacts would be moderate during the construction phase.

Operation of the Clinical Addition would minimally increase traffic noise above levels that currently exist at the VAMC Fayetteville and would include an occasional siren from an emergency vehicle. Additionally, the heliport is used two-three times per month and would temporarily increase the noise level. Because the increase traffic noise would result from increased patient visits, the noise level increases would be transitory and distributed throughout the day. Therefore, increased noise levels on a permanent basis would be *minimal-to-moderate.*

4.12 Odors

Existing Conditions

Minor odors, such as those generated by fueling and operation of construction machinery may occur during the construction phase of the Clinical Addition. Such odors would be temporary and impacts to the environment would be minimal. Indoor chemical and pollutant sources will be

controlled through the use of low emitting building and cleaning materials as well as a permanent entryway system. All areas with hazardous gases or chemicals will be exhausted. Building filtration will be provided with a minimum MERV of 13.

Environmental Impacts

The impacts on odors would be *none-to-negligible*.

4.13 Transportation, Traffic and Parking

4.13.1 Regional and Local Access

Existing Conditions

The Fayetteville VAMC is located approximately 200 miles and 3 hours north of the State Capitol, Little Rock. Located in Washington County, Fayetteville is the state's northwest hub that serves as the county seat to the third most populous county in Arkansas. The VAMC can be reached via a number of interstate and U.S. Highways, including I-540. US 412, and US 71. I-540 and I-40 are the primary routes that connect Fayetteville to Little Rock. The following are the principal roadways that provide vehicular access to the VAMC:

- US 71, North College Avenue is a five-lane highway consisting of two northbound lanes, two southbound lanes and a bi-directional center left-turn lane in the vicinity of the study area. College Avenue borders the site on the east.
- Woolsey Avenue is a 20-foot wide street consisting of a northbound lane and a southbound lane. Woolsey Avenue borders the site on the west.

There are 4 entrances into the campus – Drive A and Memorial Drive are patient entrances located off College Avenue, and two drives are located off Woolsey Avenue which are mainly service and employee entrances.

Environmental Impacts

The Traffic Study completed for the Project (see Appendix E) found that the Clinical Addition would have minimal impact to the surrounding roadways and site intersections. The Traffic Study recommends that access drive curb cuts along Woolsey Avenue must conform to design standards of the City of Fayetteville. Curb cuts will require approval by the City. A new loop road entrance, proposed for the most northern portion of the campus off Woolsey Avenue will ease traffic flow, enhance vehicular movement throughout the site, and simplify how patients, staff and service traffic find their way around the campus. Impacts on regional and local access would be none-to-negligible.

4.13.2 Traffic Conditions

Existing Conditions

Capacity and level of service analyses were performed for existing traffic conditions (existing traffic volumes, lane geometry and traffic control) for the adjacent street AM and PM peak hours for the following intersections:

- College Avenue and Memorial Drive
- College Avenue and Oakwood Street/Drive A (southeast entry drive)
- Woolsey Avenue and Drive B
- Woolsey Avenue and Drive D

The locations of all entries including Drives A-D and Memorial Drive are depicted in Figure 2-1. As indicated in Table 4-2, "Level of Service Summary – Existing Traffic Conditions," for each intersection included in this study all of the existing vehicle movements for existing traffic conditions presently operate at what calculates as an acceptable LOS "D" or better for the AM and PM peak hours except for the following vehicle movements:

Westbound vehicle movements on Oakwood Street at College Avenue (LOS "E") during the AM peak hour and (LOS "F") during the PM peak hour with existing "Stop" sign control. These volumes are very low (15 vehicles during the AM peak hour and 7 vehicles during the PM peak hour and are mostly unrelated to VAMC Fayetteville site access). Delay is expected to occur for only a short period of time during the AM and PM peak hours with all other hours operating better.

Table 4-2
Level of Service Summary
Existing Traffic Conditions

Existing Traffic Conditions		**Traffic Control**	**EB LT**	**EB TH**	**EB RT**	**WB LT**	**WB TH**	**WB RT**	**NB LT**	**NB TH**	**NB RT**	**SB LT**	**SB TH**	**SB RT**	**Overall Intersection**
INTERSECTION															
PEAK HR	PEAK HOUR LEVEL OF SERVICE														
AM	College Avenue and Memorial Drive	SIGNAL	D	D		D			A	A		A	A		**A**
PM			D	D		D			A	A		A	A		**A**
AM	College Avenue and Oakwood Street/ Drive A	SIGN			B	E		B	A	A		B	A		**n/a**
PM					B	F		B	A	A		B	A		**n/a**
AM	Woolsey Avenue and Drive B	SIGN				A		A		A		A			**n/a**
PM						A		A		A		A			**n/a**
AM	Woolsey Avenue and Drive D	SIGN				A		A		A		A			**n/a**
PM						A		A		A		A			**n/a**

Traffic volumes used for existing traffic analysis are shown on Figure 3 in the Traffic Study for the VAMC Fayetteville found in Appendix E.

Hourly, 24-hour traffic counts were made on College Avenue and Woolsey Avenue near the Project site as part of the Traffic Study for the VAMC Fayetteville. Hourly traffic count data for these locations are summarized in the study.

Environmental Impacts

Capacity and level of service analyses were performed for Projected traffic conditions with the hospital expansion as planned for the adjacent street AM and PM peak hours for the following intersections in the vicinity of the site:

- College Avenue and Memorial Drive
- College Avenue and Oakwood Street/Drive A
- Woolsey Avenue and Drive B
- Woolsey Avenue and Drive C
- Woolsey Avenue and Drive D
- Woolsey Avenue and Proposed Loop Road

Traffic volumes used for this analysis are shown on Figure 7 in the Traffic Study for the VA Medical Center of Fayetteville found in Appendix E. The operating conditions Projected to exist at these intersections are summarized in Table 4-3, "Level of Service Summary – Projected Traffic Conditions."

As indicated in Table 4-3 all of the vehicle movements at the intersections analyzed are Projected to operate or continue to operate at an acceptable LOS "D" or better during the AM and PM peak hours, except for the following vehicle movements:

- Westbound vehicle movements on Oakwood Street at College Avenue (LOS "E") during the AM peak hour and (LOS "F") during the PM peak hour with existing "Stop" sign control. These volumes are very low (15 vehicles during the AM peak hour and 17 during the PM peak hour and are mostly unrelated to the Fayetteville VAMC site access). Delay is expected to occur for only a short period of time during the AM and PM peak hours with all other hours operating better. This is a pre-existing situation with minimal additional impact from the Clinical Addition.

Table 4-3
Level of Service Summary
Projected Traffic Conditions

Existing Traffic Conditions		**Traffic Control**	**EB LT**	**EB TH**	**EB RT**	**WB LT**	**WB TH**	**WB RT**	**NB LT**	**NB TH**	**NB RT**	**SB LT**	**SB TH**	**SB RT**	**Overall Intersection**
INTERSECTION															
PEAK HR	PEAK HOUR LEVEL OF SERVICE														
AM	College Avenue and Memorial Drive	SIGNAL	D	D		D			A	A		A	A		**A**
PM			D	D		D			A	A		A	A		**A**
AM	College Avenue and Oakwood Street/ Drive A	SIGN			B	E			B	A		B	A		**n/a**
PM					B	F			B	A		B	A		**n/a**
AM	Woolsey Avenue and Drive B	SIGN				A		A		A		A			**n/a**
PM						B		B		A		A			**n/a**
AM	Woolsey Avenue and Drive C	SIGN				A		A		A		A			**n/a**
PM						A		A		A		A			**n/a**
AM	Woolsey Avenue and Drive D	SIGN				A		A		A		A			**n/a**
PM						A		A		A		A			**n/a**
AM	Woolsey Avenue and Proposed Loop Road	SIGN				A		A		A		A			**n/a**
PM						B		B		A		A			**n/a**

Key to Table 4-3 can be found in Table 4-2.

Additional analysis was conducted for Woolsey Avenue, adjacent to the hospital. Projected volumes are expected to be approximately 3,120 vehicles per day with satisfactory operation of the two-lane roadway segment, as it exists. Furthermore, this roadway section calculates to operate at an acceptable LOS "A" or better for the highest (PM peak hour) with other hours LOS even better with the development of the Project. These calculations are included in Appendix E.

The Traffic Report found that there would be minimal impact to the surrounding roadways and site intersections as a result of the additional traffic associated with the Project, therefore impacts on traffic conditions would be *none-to-negligible*.

4.13.3 Parking Considerations

Existing Conditions

Existing parking on the site consists of a large primary lot on the north side up to the north boundary line. The main staff parking lot is west of Building 2 and the new Clinical Addition

and Renovations. Because of recent parking lot expansions and improvements, there is a present parking excess of 81 parking spaces.

Environmental Impacts

Parking during construction will be an issue, and parking offsite for a portion of the Project will be required. The VAMC Fayetteville may need to provide as many as 255 spaces during construction. Some phasing of the lots maybe possible but a good portion of the areas will be needed for the contractor's access, lay down, storage and parking. The area at the east side of the parking lot from the new entrance drop off loop has been considered for this use.

During the operational phase, the Project will create a demand for additional parking for both employees and patients. The campus currently provides a total of 930 parking spaces for employees, patients, visitors and official administration (source: VA Facility Parking Analysis Questionnaire dated 2/1/07). Based upon current parking needs, the facility needs 849 spaces, leaving an average daily excess of 81 spaces. Construction will result in a net loss of 53 spaces. Once the Project is constructed, the demand for spaces will rise to 1,125 leaving a deficit of spaces of 248. Future projected parking needs (2026) indicate the need for parking will drop to 176 spaces.

To address the anticipated future demand, three new parking lots will be sited during the planning for future minor projects on the campus. These parking lots will accommodate 177 parking spaces to meet the expected 2026 requirement. See Table 4-4 for a summary of parking needs. Impacts on parking are *significant-if-not-mitigated.*

Table 4-4
Parking Requirements Analysis

PARKING DEMAND	2007	2011	2026
Existing Number/Future Number	930*	877**	877**
Existing/Projected Need	849	1,125	1,053
Parking Deficit/Excess	+81	- 248	-176

Source: VA Parking Analysis 9/10/07
*Construction will result in loss of 53 parking spaces.
**Does not include 177 spaces located in 3 future lots.

4.13.4 Public Transportation

Existing Conditions

Public transportation in the area of VAMC Fayetteville consists of bus runs operated by Ozark Regional Transit. The Route 40 runs between Hillcrest Towers and the Ozark Guidance Center in Springdale with buses and serves the VA Hospital, Fiesta Square, Washington Regional Hospital and the North Hills Medical complex, Wal-Mart Supercenter on Mall Ave and the NWA Mall in Fayetteville. Buses stop at VAMC Fayetteville throughout the day on an as needed basis.

Environmental Impacts

Public transportation is an essential mode of transportation for veterans and their families given the rural nature of the service area. The Project will generate new patients and workers, many of which will utilize public transportation when it is available. Because VAMC Fayetteville draws a veteran population from great distances, most patients use the automobile for transportation. Given the increase in the Fayetteville veteran population, demand for ridership will increase and the transit company will adjust the number of runs and stops to the VAMC Fayetteville. Impacts on public transportation are *none-to-negligible*.

4.14 Utilities

4.14.1 Energy Resources

Existing Conditions

The existing VA Hospital campus is presently served by the major electrical service provider in the Fayetteville area - Southwestern Electric Power Company (SWEPCO). The gas provider is Arkansas Western Gas. The existing campus is presently served from two overhead 12.47 kV primary distribution lines referred to as the "Woolsey Feed" and the "College Feed". The "Woolsey Feed" originates from SWEPCO circuit 1C60 in the Fayetteville Substation and the "College Feed" originates from SWEPCO circuit 9940 in the North Fayetteville Substation.

AEP SWEPCO has confirmed that the "College Feed" is currently at capacity during the peak summer load conditions and it is unlikely that this feed could sustain the VA campus electrical load at this time. However a new substation ("Gregg Street") is currently being constructed and will be available sometime in the summer of 2009. At that time, SWEPCO proposes to switch the VA campus alternate feed from "College" to "Hyland 12230". There is an existing overhead switch located south of the VAMC campus that can be utilized to make this change.

Annual base year energy consumption and costs for this account were calculated to be 7,473,600 kWh and $350,904 respectively. The average peak demand was determined to be 1,278 kW with a peak demand of 1,536 kW. The estimated demand load for the Clinical Addition is 2892 kVA (3480 amps at 480 V). The estimated demand load equates to an aggregate load of 20 VA/sf.

Environmental Impacts

A number of energy conservation measures are built into the Project. The building envelope, HVAC, lighting, and other systems will be designed to maximize energy performance standards. HVAC equipment that does not contain CFC-based refrigerants will be specified for the Project. Modest energy conservation measures incorporated into the design will allow the Project to obtain a 14 percent cost savings for the Clinical Addition and 7 percent for renovated areas over the baseline building performance rating. Site lighting for the Clinical Addition will be designed to meet security lighting requirements and to satisfy the light pollution reduction requirements of

LEED. Lighting control strategies will include multilevel switching, occupancy sensors, and photocells. Impacts on energy resources would be *none-to-negligible*.

4.14.2 Water Supply

Existing Conditions

Potable water is supplied to the City through the Beaver Water District whose source is the Beaver Lake Reservoir. The City of Fayetteville buys water from the District and owns and operates the system in Fayetteville, Farmington, Greenland, Goshen, Wheeler, parts of Johnson and some rural areas in Washington County. Fayetteville also provides wholesale service to Elkins, West Fork, Mount Olive Rural Water Association, and Washington Water Authority on an as needed basis. An expansion of the Hardy W. Croxton Water Treatment Plant was recently completed. The capacity exists to add an additional pump to the system when demand warrants.

Existing water service enters the site at the northwest corner of the property and extends to the boiler plant. From the boiler plant water service extends to a VAMC internal site loop connected to the water tower. This new water tower has the capacity to sustain the facility in water for two and one-half days if cut from the City's water supply. The water tower is kept full to provide the best possible water pressure to the upper floors of the medical center. The domestic water for the Project will be supplied from the existing domestic water system. Engineers are currently evaluating for potential connection to the Clinical Addition.

Environmental Impacts

The service line and VAMC internal loop lines that cross the northern portion of the site will need to be relocated to accommodate the site grading. It is believed these lines can be relocated/lowered while keeping the existing facility with water services. The existing feed for the chillers will be connected to an existing line on the west side of the site and the line that runs under the existing facility will be removed. If the proposed main Standby Generator Plant is accepted, the main water service to the site will need to be relocated to this area. Domestic water mains will consist of a minimum of two vertical risers which will have a tee fitting with an attached shut-off valve located above the ceiling space at every floor level for the distribution mains and branches. The hot water domestic water system will be a conventional feed system with similar set up.

4.14.3 Sanitary Wastewater

Existing Conditions

The city currently owns and operates one treatment plant. The facility is designed to accommodate 12.6 million gallons per day (mgd) on an average basis, and treats flows to one of the most stringent standards in Arkansas. The system uses surface water disposal of wastewater effluent in the White River and parts of Mud Creek. Sludge disposal is via landfill. In 2006 the facility reached 100 percent, by flow volume, of its capacity. In response to the increase in

wastewater a new facility is being constructed in Fayetteville. The facility is scheduled to become operational in May 2008. When this 10 mgd (average day) facility comes on line the city will have a total treatment plant capacity of 21.4 mgd. The Wastewater System Improvement Project (WSIP) is a system wide Project that significantly increases the capacity of the City of Fayetteville's wastewater system. The Project addresses capacity shortfalls in the wastewater collection and treatment systems; the design is expected to treat the wastewater for 115,000 people. This Project will increase the City's wastewater treatment capacity from 12.6 to 21.4 million gallons per day, and will significantly reduce the number of sewer system overflows due to rain and ground water entering the system. It also improves odor control facilities system wide. The new transmission pipelines are designed to carry flows from their respective areas for a full 100+ years of growth.

The original wastewater collection system was built in 1889. The system is a network of gravity wastewater pipelines and pressurized force mains with pumps or lift stations. The system consists of 488 miles of gravity sewer lines ranging between 6 and 36 inches; 40 lift stations; and 32 miles of pressure force mains. Sections of the collection system are overloaded in wet weather. There is no industrial wastewater generated on the VAMC Fayetteville campus.

Environmental Impacts

Impacts on sanitary waste would be *none-to-negligible*.

4.14.4 Stormwater

Existing Conditions

The stormwater sewer will be an independent system consisting of multiple roof drains and multiple rain leaders manifold together at the base within the building's stormwater sewer systems. The storm sewers will exit the building by gravity.

Surface drainage on the site is considered fair to good. Stormwater collection on the site is absorbed into the ground or flows across pavement into the facility's stormwater conveyance and then into the municipal stormwater sewer system.

Environmental Impacts

Stormwater drains may be impacted by the Project, however, no environmental concerns are associated with these drains. Any potential environmental impacts stemming from stormwater runoff will be mitigated through the design, implementation, and subsequent management of the stormwater through the Stormwater Pollution Prevention Plan (SWPPP). The Project will disturb an area of 10 acres and, therefore, will require the submittal of a SWPPP and a Notice of Intent (NOI) for review and coordination with the Arkansas Department of Environmental Quality before starting construction.

4.15 Waste Management

4.15.1 Municipal Solid Waste

Existing Conditions

The City of Fayetteville's Solid Waste and Recycling Division provides for the collection of commercial and residential waste for the City of Fayetteville. Composting and Recycling programs are operated jointly to divert the maximum amount of material from the landfill to productive use.

The State maintains a list of facilities permitted as solid waste landfills, incinerators, or transfer stations. No permitted landfill and/or solid waste disposal sites were identified within a 0.5-mile radius of the Project site.

Two dumpsters, utilized for construction debris and service ongoing projects, are located on the site near the proposed expansion. No environmental issues are associated with these dumpsters. Regular solid waste is collected throughout the facility and transferred to dumpsters on site. VAMC Fayetteville uses the City's contracted haulers to transfer the waste to the Fayetteville Municipal Transfer Station. All solid waste materials, with the exception of chemo and red bag waste, are treated in an autoclave sterilizer. Chemo and red bag waste is ground up and picked up by a special medical waste hauler. Paper shredding and aluminum can recycling is part of the VAMC Fayetteville's every day recycling operations.

Environmental Impacts

During construction the contractor would have responsibility for adhering to regulatory requirements for the disposal of solid waste and construction debris and the management of such solid wastes would be in accordance with federal, state, and local regulatory requirements. Due to the fact that there will be limited demolition activities as part of the VAMC expansion, it is estimated that the amount of municipal solid wastes generated during construction would be minor.

The amount of solid waste generated by the VAMC will rise proportionately to the amount of new space and services generated by the project. This amount would represent a negligible increment, and is well within the VAMC's and City's solid waste management capacity. Impacts on solid waste would be *none-to-negligible.*

4.15.2 Medical Waste

Existing Conditions

In general, special medical waste includes human blood or materials soiled with blood, cultures or stocks of infectious materials soiled with infectious agents, syringes, and needles.

The red tin storage building on the west side of Building 1 is the biohazardous waste storage area. The biohazards are properly stored and transported to the sterilizer building and processed prior to being transported off-campus for disposal by a licensed contract hauler.

Environmental Impacts

Operation of the Clinical Addition would incrementally increase the amount of medical waste that will require storage and disposal. The biohazardous waste storage area will be affected by the Project, therefore, the storage of biohazard medical waste will be relocated to the new loading dock area. There are no significant issues related to medical waste, therefore, the impacts would be *none-to-negligible.*

4.15.3 Hazardous Waste

Existing Conditions

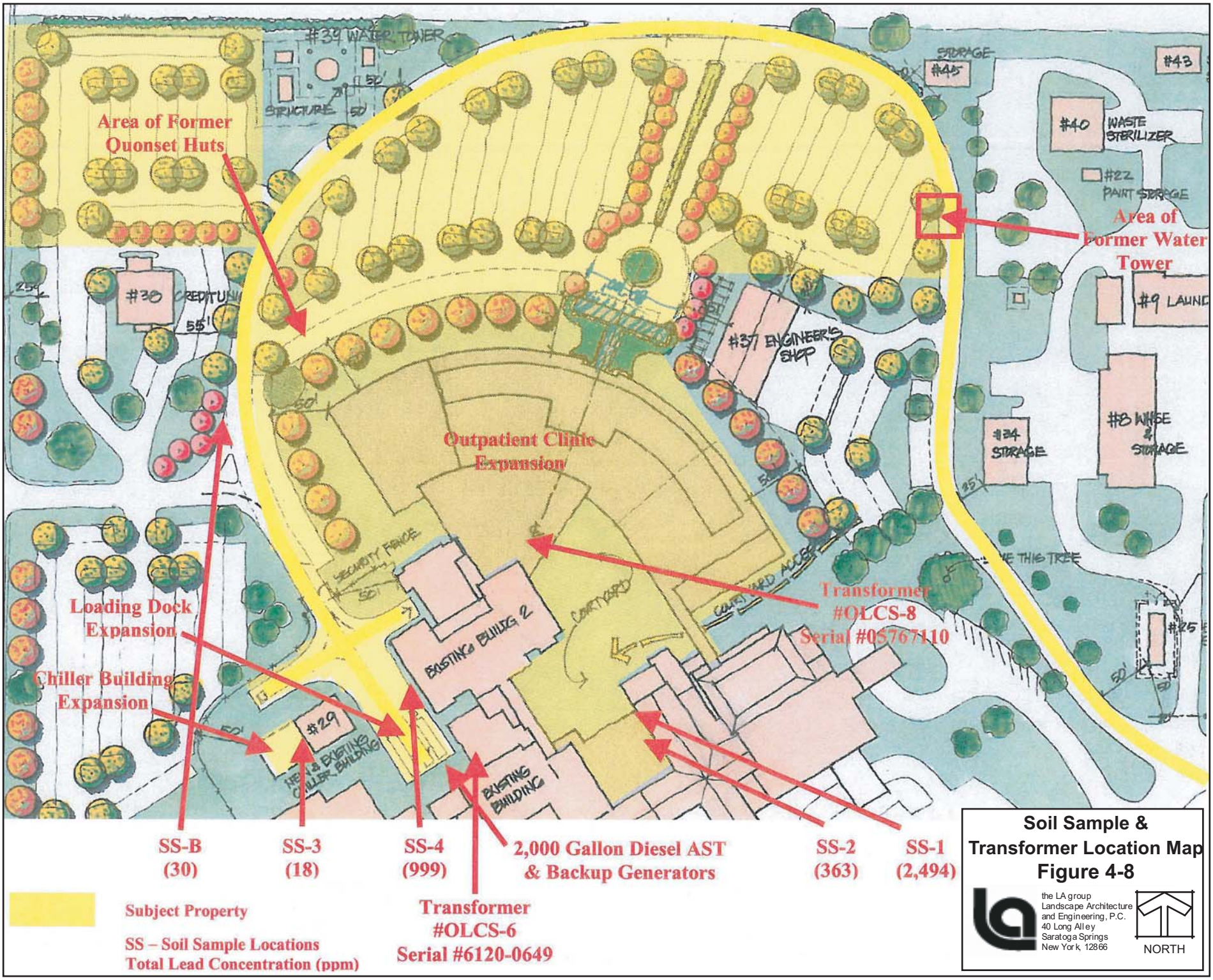
A Phase I Environmental Site Assessment with Soil Lead Testing was performed in conformance with the scope and limitations of ASTM Practice E 1527-05 of the Project. See Appendix D for the complete report. A summary of the report's findings can be found in the following narrative. Figure 4-8, 'Soil Sample and Transformer Location Map," illustrates the locations for soil sampling performed for the Environmental Site Assessment.

Medical gases are stored on the site in pressurized tanks. These tanks will be relocated as a result of the Project. No environmental impacts to site soils are anticipated as a result of the relocation of the medical gas tanks.

There are three caps labeled "gas" in the concrete sidewalk at the back entrance to Building 1. The gas lines are identified as natural gas lines that formerly supplied the laboratory and pharmacy. These lines may still be active. No environmental impact is expected from the gas lines, they will be relocated as part of the project.

Medical wastes are properly stored, transported to the sterilizer building and processed prior to being transported off-campus for disposal by a licensed contract hauler. One approximately 2,000-gallon diesel storage tank is located on the loading dock expansion area. The tank is used for backup fuel for the diesel generator. No visible signs of a release is evident. The tank is enclosed in a concrete vault with secondary containment; all piping is above ground. The system is not considered a recognized environmental condition.

Two pad-mounted transformers were located on the site. Transformer #OLCS-6 is located at the back entrance of Building 1 on the south side of the service elevator entrance. Transformer #OLCS-8 is located at the northeast corner of the MRI Building (Building 2). Figure 4-8 indicates the locations of the transformer pads. Both transformers are newly purchased and are therefore unlikely to contain PCB's. The units appeared to be intact with no leakage, staining or discoloration. It is anticipated that the transformers will need to be relocated for the Clinical



Soil Sample & Transformer Location Map
Figure 4-8

the LA group
Landscape Architecture and Engineering, P.C.
40 Long Alley
Saratoga Springs
New York, 12866

Addition. No environmental concerns are associated with the removal as long as they are properly handled and no release of oil occurs.

An asbestos survey was performed in 1988 that included Buildings 1 and 2. A re-inspection of the impacted areas of Buildings 1,2, and 29 will be performed prior to construction.

A lead-based paint inspection for areas of Buildings 1 and 2 in the areas of the tie-in to the building's expansion will be performed prior to construction. Soil samples were collected in the area of the Project for lead analysis. Soil samples from the drip line of Buildings 1, 2 and 29 were evaluated for lead analysis and were found to be elevated above the USEPA Region 6 soil screening level of 800 ppm. The soil sample results were elevated above the USEPA Region 6 soil screening level of 800 ppm for an industrial worker with dermal contact. The areas of concern are west of Building 1 and west of Building 2.

Environmental Impacts

No off-site environmental conditions were identified as recognized environmental conditions with the site. With the exception of lead-contaminated soil in limited areas, the assessment revealed no evidence of recognized environmental conditions. If these soils in the area of concern are to be excavated, proper handling and disposal of soils will be necessary. Hazardous Waste impacts are therefore *none-to-negligible*.

4.16 Public Opinion

Existing Conditions

Public involvement and opinions regarding the Proposed Action are anticipated and will be encouraged to the maximum extent of NEPA requirements. In addition to VAMC personnel and public officials, comments from the public are being solicited.

Environmental Impacts

Public opinion impacts are therefore *beneficial*.

4.17 Human Health

Existing Conditions

CARES data indicates there is a large gap in both specialty care and ancillary care for veterans seeking care at the VAMC Fayetteville. The reduction in the size of the gaps will benefit the health and welfare of veterans by:

- Improving care for inpatients and outpatients by providing timely access to specialty and ancillary care;

- Providing safe and quality healthcare that meets or exceeds community standards for veterans and their families;
- Providing coordinated, comprehensive and integrated care to promote health and improve patient functioning;
- Reducing the variability of health outcomes by providing for a more consistent delivery of care;
- Improving access, convenience and timeliness of healthcare services;
- Improving the level of patient satisfaction.

Environmental Impacts

Human health impacts are, therefore, *beneficial.*

4.18 Safety and Security

Existing Conditions

The Clinical Addition will comply with the Final Draft of the Physical Security Design Manual for VA Facilities. VAMC Fayetteville is designated a Mission Critical facility required to remain in operation during a natural or man-made extreme event. While the security strategies apply to the entire Medical Center campus, the following are key components of the physical security applied to the scope of Clinical Addition and Renovations for this Project only:

- 50 foot setback distance for vehicles
- Anti-ram protection at the main entrance to the building
- Secured loading dock and interior courtyard
- Laminated glass in the main lobby
- Progressive collapse of the exterior column line and blast resistance
- Segregate public from non-public areas with wall, hardware, etc.
- Emergency generator capacity for four full days of operations
- Secured mechanical and electrical rooms
- Sprinklers in telecommunications closet
- Protect fire protection systems
- Separate HVAC system for lobby areas
- Access control hardware and intrusion detection system for the Loading Doc, Lab, Pharmacy, and all entrances and exits
- Positive air pressure for building
- CCTV at the parking lot, entrances and pharmacy
- Security lighting around building perimeter

Environmental Impacts

There are no significant issues related to safety and security, therefore, the impacts would be *none-to-negligible.*

4.19 Environmental Justice

Existing Conditions

The Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority and Low Income Populations* requires agencies to determine whether their proposed actions will result in disproportionate adverse impacts on minority or low-income populations. To prevent low-income and minority communities from being excluded from construction jobs all contractors must follow the Equal Opportunity Employment and Affirmative Action considerations (29 CFR 1608.1).

Once operational, the Clinical Addition and Renovations Project would provide beneficial impacts to all veterans in the vicinity of Fayetteville by resolving critical gaps for specialty and ancillary care and by providing additional space to meet the rising need for veteran healthcare in the region. Because the Clinical Addition would not otherwise have significant adverse impacts that would affect residential areas adjacent to Fayetteville as described elsewhere in this section, the implementation of the Clinical Addition would not have an adverse impact on minority and low-income populations in the vicinity.

Environmental Impacts

There are no significant issues related to environmental justice, therefore, the impacts would be *none-to-negligible.*

4.20 Cumulative Impacts

Existing Conditions

Cumulative impacts represent the sum of all direct and indirect impacts, both adverse and positive that result from the Project when combined with past, present, and future actions regardless of source.

The Project represents a significant improvement for the veterans and residents of Fayetteville. There will be a significant increase in the workforce which will have a positive impact for the region. The new employees will provide a solid base of new workers with medical service skills that can be shared throughout the regional medical community. This Project combined with other economic development Projects and initiatives in downtown Fayetteville and in the immediate area around the community have created the 4th fastest Metropolitan Statistical Area (MSA) for job growth. The City has a population that is significantly younger than other regional cities indicating its progressiveness, affordability and active learning and living anchor for young people. Cumulative impacts associated with Socioeconomics are *beneficial.*

Transportation impacts, including impacts to regional and local access, traffic, parking, and public transportation will not have a significant cumulative impact. Vehicular access points into the campus have been redesigned to absorb and distribute any new demand. Traffic volumes

along the roads that service VAMC Fayetteville are adequate with the Project not triggering the need for roadwork improvements. All but one intersection operates at an acceptable LOS of "D" or better for the peak hours indicating that there is ample capacity on the roadways to meet the travel demand. The number of parking spaces on the campus will be incrementally increased to meet new demand. At no point will parking needs be under capacity. Public transportation will continue at normal levels with new passenger demand from both veterans and employees. New demand will ultimately result in the creation of more runs or more routes, which will add to the convenience of the user and ridership levels.

The operation of the Clinical Addition and Renovations would add to existing and planned demands for utilities and waste management services. The cumulative total consumption of these resources would be well within the capacities of these established management systems. Cumulative impacts related to utilities and waste management would be *none-to-negligible*.

Environmental Impacts

Some impacts will have a non-to-negligible impact on cumulative impacts, however, overall, the Project will make a *beneficial* contribution to cumulative impacts.

4.21 Comparison of the Preferred Alternative with the No Action Alternative

4.21.1 No Action Alternative

The No Action Alternative will perpetuate the condition of an already underserved veteran population. The deficiency in the CARES Specialty gap is the number one obstacle to the commitment of timely, accessible health care at VAMC Fayetteville. Selection of the No Action Alternative would prevent VAMC Fayetteville from providing the space for implementation and expansion to accommodate the rapid increase in veterans seeking medical services in the VISN 16 Upper Western Market.

Maintaining the status quo would mean escalating issues relating to the distribution and availability of services for veterans in the area of service. It means continuing with the same level of employees, a number of which are already over committed. All Projected CARES workload gaps would have be contracted out to private providers. The VA's mandate of providing access to Specialty Care within 60 minutes drive time for urban areas and 90 minutes drive time for rural areas cannot be met within the current available space. This alternative does not meet the needs of the veterans, CARES requirements, or VA performance measures. Impacts on Socioeconomics and Human Health could potentially be *significant-if-not-mitigated* due to a deficiency and gaps in the provision of specialty medical services.

4.21.2 Preferred Alternative – Clinical Addition and Renovations

Implementing the Proposed Action would assist in meeting the Secretary's priorities and the President's management agenda by enhancing the quality of care while meeting the community standard of care. It will also satisfy all five goals of the Department of Veterans Affairs Strategic

Plan including the objective to provide high quality, reliable, accessible, timely and efficient health care that maximizes the health and functional status of all enrolled veterans. The proposed Project is the most viable and cost effective alternative to meet CARES gaps in specialty and ancillary services, thereby enhancing the facility's ability to provide coordination and continuum of care to meet the total health care needs of the veteran. Further consideration for this alternative is that the increase in specialty and ancillary services that will result from the construction will enhance the ability to recruit, develop, and retain competent, committed and diverse staff to provide the highest level of service for veterans and their families.

Potential adverse environmental impacts are *none-to-negligible* for the majority of impacts. *Beneficial* environmental impacts include impacts on Land Use, Socioeconomics, Public Opinion, and Public Health. Parking represents an impact that could be *significant-if-not-mitigated.* Soils and Transportation could have *minimal-to-moderate* impacts due to the potential for soil lead contamination and increase in ridership on public buses.

Table 4-5
Summary of Potential Impacts

Type of Impact	No Action Alternative	Preferred Alternative	Mitigation Required
Land Use and Zoning	None-to-negligible	Beneficial	None
Climate	None-to-negligible	None-to-negligible	None
Topography	None-to-negligible	None-to-negligible	None
Geology	None-to-negligible	None-to-negligible	None
Soils	None-to-negligible	Minimal-to-moderate	None
Water Resources	None-to-negligible	None-to-negligible	None
Biological Resources	None-to-negligible	None-to-negligible	None
Air Quality	None-to-negligible	None-to-negligible	None
Cultural Resources	None-to-negligible	None-to-negligible	Architecturally consistent
Socioeconomics	Significant-if-not-mitigated	Beneficial	None
Noise	None-to-negligible	Minimal-to-moderate	None
Odors	None-to-negligible	None-to-negligible	None
Traffic	None-to-negligible	Minimal-to-moderate	None
Transportation	None-to-negligible	Minimal-to-moderate	None
Parking	None-to-negligible	Significant-if-not-mitigated	Additional parking spaces
Public Transportation	None-to-negligible	None-to-negligible	None
Utilities	None-to-negligible	None-to-negligible	None
Municipal Waste	None-to-negligible	None-to-negligible	None
Medical Waste	None-to-negligible	None-to-negligible	None
Hazardous Waste	None-to-negligible	None-to-negligible	None
Public Opinion	None-to-negligible	Beneficial	None
Human Health	Significant-if-not-mitigated	Beneficial	None
Safety and Security	None-to-negligible	None-to-negligible	None
Environmental Justice	None-to-negligible	None-to-negligible	None
Cumulative Impacts	Minimal-to-moderate	None-to-negligible	None

SECTION 5.0 CONCLUSION

The Proposed Action, the construction and operation of a Clinical Addition and Renovations to the Fayetteville Arkansas Veterans Administration Medical Center, is the preferred alternative. The main objective of the Proposed Action is for the VAMC to accommodate the growing health care demands of veterans within the South Central VA Health Care Network of VISN 16. The Clinical Addition would provide a full continuum of patient-centered, one-stop, quality, health care for primary and specialty care with supporting ancillary services. Based on the impacts analysis in Section 4.0, the Project would have no *significant-and-unmitigable* adverse impacts on the natural and human environments that would preclude the issuance of a FONSI.

A judicious review of five alternatives was conducted to ensure that the needs of the veterans were met and that taxpayers and government officials could be assured that the appropriations for this Project represent the best use of public funds. Alternatives considered included: no action, new construction of an addition on the existing facility, leasing of new off campus space, contracting for services with other off-site facilities, and the renovation of existing space. Construction and operation of the Clinical Addition is the most viable and economical alternative. It will provide the space resources necessary to correct the CARES gaps in specialty and ancillary services.

Under the No Action Alternative, there would be no benefits realized from the construction and operation of a Clinical Addition. Maintaining the status quo would mean escalating issues relating to the distribution and availability of services for veterans in the area of service. It means that the VA would not meet its goal of providing a full continuum of patient-centered one-stop quality health care for primary and specialty care with supporting ancillary services.

Under the Preferred Action, the Clinical Addition and Renovations, the most significant impacts on any one environmental resource as indicated in Table 5-1, "Summary of Potential Impacts," would be *significant-if-not-mitigated* for Parking. These impacts have been sufficiently mitigated through design and construction of the Project.

The EA also identified a number of environmental issues that would be *beneficial* from the Clinical Addition and Renovations Project. These include land use, socioeconomics, public opinion, and human health. The Project will organize and simplify vehicular and pedestrian access throughout the campus so that all users of the site would benefit. The socioeconomic environment and area employment will also benefit because there are 280 new jobs associated with the operational phase of the Project. In addition, the growing veteran population that is served by VAMC Fayetteville will realize positive benefits by addressing the large gap in both specialty care and ancillary care for veterans seeking care at the VAMC Fayetteville. The reduction in the size of the gaps will benefit the health and welfare of veterans by:

- Improving care for inpatients and outpatients by providing timely access to specialty and ancillary services;
- Providing safe and quality healthcare that meets or exceeds community standards for veterans and their families;
- Providing coordinated, comprehensive and integrated care to promote health and improve patient functioning;
- Reducing the variability of health outcomes by providing for a more consistent delivery of care;
- Improving access, convenience and timeliness of healthcare services;
- Improving the level of patient satisfaction.

Public opinion will be *beneficial* since comments on the EA are solicited, encouraged and anticipated.

The EA identified several potential environmental issues associated with the implementation of the Project. The impacts of principal concern would be on historic resources, particularly on Buildings 1 and 2, which were constructed in the early 1930's, and will be closely associated with the Project. These issues have been adequately addressed by the architecture of the Clinical Addition, which is sensitive to the historic qualities of the existing buildings and campus in general. The landscape elements were defined by the desire to preserve the natural beauty of the campus, the integrity of the historic buildings, and the formal entry and main entrance to the facility. The exterior finish materials, building and window proportions, and articulation of details are derived from the historical context of the original campus buildings. The contemporary additions are integrated into Buildings 1 and 2 consolidating the look of the complex. A review by the Arkansas Historic Preservation Program has found there will be no adverse effect.

Impacts on parking were also found to be *significant-if-not-mitigated.* Parking offsite will be utilized if parking on site becomes an issue during construction. The area at the east side of the parking lot from the new entrance drop off loop has been considered for construction staging and parking. During the operational phase, the Project will create a demand for additional parking for both employees and patients. Once the Project is operational the demand for spaces will leave a deficit of approximately 176 spaces. Potential new parking lots will create approximately 177 new spaces thereby creating more than enough parking to meet the demand from the Project.

The principal conclusions of this EA are:

1. The implementation of the Clinical Addition and Renovations at the Fayetteville Arkansas Veterans Administration Medical Center would provide needed additional medical services to accommodate the rapidly increasing number of veterans in the VISN 16 Upper Western Market, and fulfill the VA Strategic Plan goals to provide high quality, reliable, accessible, timely, and efficient health care that maximizes the health and function of all enrolled veterans,

2. The construction and operation of the Project would not result in any *significant-and-unmitigable* adverse impacts on the natural or human environments that would preclude the issuance of a FONSI; and
3. The implementation of the No Action Alternative would have no adverse impacts to the natural or human environment, but it would not provide any of the benefits associated with the Preferred Alternative. Maintaining the status quo would mean escalating issues relating to the distribution and availability of services for veterans in the area of service. It also means that the VA would not meet its goal of providing a full continuum of patient-centered one-stop quality health care for primary and specialty with supporting ancillary services.

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SECTION 7.0 ACRONYMS AND ABBREVIATIONS

ADA	Americans with Disabilities Act
ADEQ	Arkansas Department of Environmental Quality
AHPP	Arkansas Historic Preservation Program
AMSL	Above Mean Sea Level
ANHC	Arkansas Natural Heritage Commission
APP	Accident Prevention Plan
BMP	Best Management Practice
CARES	Capital Asset Realignment for Enhanced Services
CBOC	Community-Based Outpatient Clinic
CEQ	President's Council on Environmental Quality
CFR	Code of Federal Regulations
CFM	Office of Construction and Facilities Management
CWA	Clean Water Act
DAH	Department of Arkansas Heritage
DGSF	Design Gross Square Feet
DHS	Department of Homeland Security
DOI	Department of the Interior
DOT	Department of Transportation
EA	Environmental Assessment
EDR	Environmental Data Resources
EO	Executive Order
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FTEE	Full Time Equivalent Employees
FONSI	Finding of No Significant Impact
GSA	General Services Administration
HIPPA	Health Insurance Portability & Accountability Act
HVAC	Heating, Ventilation, Air conditioning
MERV	Minimum Efficiency Reporting Value
MOA	Memorandum of Agreement
MSL	Mean Sea Level
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act of 1996, as amended
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
ADOT	Arkansas Department of Transportation
ROD	Record of Decision
SOF	Statement of Findings
SWPPP	Storm Water Pollution Prevention Plan
USACOE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USDI	United States Department of the Interior
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
VA	Veterans Affairs

VAMC	Veterans Affairs Medical Center
VHA	Veterans Health Administration
VISN 16	Veterans Integrated Service Network 16

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