

**Environmental Assessment for  
Realignment of  
Fort Hayes Memorial US Army Reserve Center,  
Franklin County, Columbus, Ohio  
FACID OH013**



Prepared by Parsons

Under the Direction of the Mobile District, US Army Corps of Engineers

Contract Number W91278-04-D-0017

Delivery Order 0008

July 2007



## PUBLIC NOTICE OF AVAILABILITY

### **ENVIRONMENTAL ASSESSMENT FOR REALIGNMENT OF FORT HAYES MEMORIAL US ARMY RESERVE CENTER, COLUMBUS, OHIO**

Pursuant to the Council on Environmental Quality regulations for implementing the procedural provisions of the National Environmental Policy Act (40 CFR 1500), and 32 CFR 651 Environmental Analysis of Army Actions, the Army has conducted an Environmental Assessment (EA) for Realignment of Fort Hayes Memorial US Army Reserve Center, Columbus, Ohio. The EA considers the potential environmental and socioeconomic effects associated with implementing the Defense Base Closure and Realignment (BRAC) Commission recommendations for actions to occur at Fort Hayes.

The BRAC Commission directed the Department of Defense to “*Close Fort Hayes US Army Reserve Center, Columbus, OH, and Whitehall US Army Reserve Center, Whitehall, OH, and relocate units to a new Armed Forces Reserve Center on Defense Supply Center Columbus, OH.*”

**Public Availability:** The EA and Draft Finding of No Significant Impact (FNSI) will undergo a 30-day public comment period after publication of this Notice of Availability. This is in accordance with requirements specified in 32 CFR Part 651.14(2) Environmental Analysis of Army Actions. Individuals who have questions about this action should contact the Parsons Project Manager, Mr. Darrel Sisk, by phone at (314) 434-2900 or by mail. All comments on the Proposed Action, the EA, or the Draft FNSI should be mailed to the following address:

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The EA and the Draft FNSI are available for review at the Department of the Army BRAC Environmental Web Site; [http://www.hqda.army.mil/acsim/brac/env\\_ea\\_review.htm](http://www.hqda.army.mil/acsim/brac/env_ea_review.htm) or at the following libraries:

- Columbus Metropolitan Library, Whitehall Branch, 4371 E. Broad Street, Whitehall, OH 43213;
- Columbus Metropolitan Library, Livingston Branch, 3434 Livingston Avenue, Columbus, OH 43227; and
- Columbus Metropolitan Library, Driving Park Branch, 1566 E. Livingston Avenue, Columbus, OH 43205.

Additional information on the hours of operation and maps to these locations is located at <http://www.columbuslibrary.org/index.cfm> or is available by calling the Columbus Metropolitan Library at telephone number 614-645-2275.

Comments on the EA and Draft FNSI should be submitted no later than 30 days from the date of this publication.

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**DRAFT FINDING OF NO SIGNIFICANT IMPACT**  
**ENVIRONMENTAL ASSESSMENT FOR REALIGNMENT OF  
FORT HAYES MEMORIAL US ARMY RESERVE CENTER,  
FRANKLIN COUNTY, COLUMBUS, OHIO  
FACID OH013**

This Finding of No Significant Impact (FNSI) addresses actions documented in the *Environmental Assessment for Realignment of Fort Hayes Memorial US Army Reserve Center, Columbus, Ohio*. The Environmental Assessment (EA) is hereby incorporated by reference in this FNSI. Therefore, information in this FNSI will be limited to an overview of key elements of the EA, and conclusions regarding the type and degree of environmental impacts that may occur because of the Proposed Action.

### **PROPOSED ACTION**

The Base Closure and Realignment (BRAC) Commission directed that the Department of Defense (DoD) *“Close Fort Hayes US Army Reserve Center, Columbus, OH and Whitehall US Army Reserve Center, Whitehall, OH and relocate units to a new Armed Forces Reserve Center on (Defense Supply Center, Columbus) DSCC. The new (Armed Forces Reserve Center) AFRC shall have the capability to accommodate units from the following facilities: Ohio (Army National Guard) ARNG Armories Howey (Columbus), Sullivant (Columbus), Newark, Westerville and Oxford, OH, Rickenbacker Air National Guard Base, Building #943 if the state decides to relocate those National Guard units.”*

### **ALTERNATIVES ANALYZED**

#### **Alternative 1, No Action Alternative**

The No Action Alternative will be included as required by the Council on Environmental Quality (CEQ) regulations. The No Action Alternative would be to continue the missions at BRAC-affected installations as they were in November 2005. Because the law mandates closure and realignment of installations, this alternative would not be feasible. Nevertheless, it serves as a baseline alternative against which to compare the other alternatives.

#### **Impacts of Army Realignment, Closure and Disposal**

The EA also reviews the potential impacts of three potential implementation alternatives. These alternatives include:

- Alternative 2, Early Transfer Disposal;
- Alternative 3, Traditional Disposal; and
- Alternative 4, Caretaker Status Prior to Disposal.

Under each of these three disposal alternatives, the Army would include encumbrances designed to ensure protection of the historic Guard House, as well as the future users of the property from potential lead-based paint, asbestos containing materials and polychlorinated biphenyls.

## Potential Impacts of Community Reuse

The Army decision maker does not have direct control over the following likely development intensities the Community will use for the Fort Hayes Memorial US Army Reserve Center (USARC). Nevertheless, the Army has evaluated the potential impacts associated with each of these intensities but will not reach a decision concerning which of these alternatives the community will choose to implement. Additionally, the Army expresses no preference with respect to reuse scenarios because decisions implementing reuse will be made by other entities. Potential reuse scenarios considered and discussed included the following:

- Scenario A, Medium Intensity Reuse;
- Scenario B, Medium-High Intensity Reuse.

## ENVIRONMENTAL IMPACTS OF THE PROPOSED ACTION

The EA analyzed 12 resource areas for each alternative: aesthetics and visual resources, air quality, biological resources (flora, fauna, threatened and endangered species and unique and critical habitats) hazardous and toxic substances, land use, noise, cultural resources, socioeconomics, soils, transportation, utilities, and water resources. The analyses in the EA concluded that there would be no significant adverse or significant beneficial environmental impacts resulting from the Proposed Action or alternatives.

## MITIGATION SUMMARY

As discussed in the EA, implementing any of the proposed implementation Alternatives or the No Action Alternative is not anticipated to result in any significant impacts. Consequently, no mitigation measures are required as part of this EA to reduce impacts to non-significant levels.

However, in association with the proposed action, a number of Best Management Practices would be implemented with the proposed construction and renovation activities, regardless of the alternative selected. These measures are designed to avoid, rectify, or reduce adverse impacts. For those adverse impacts that cannot be avoided, the Best Management Practices have been developed to include features designed to: protect, maintain, restore, or enhance environmental conditions.

## CONCLUSION

This, EA was conducted in accordance with the requirements of the National Environmental Policy Act of 1969 (NEPA), the Council on Environmental Quality regulations implementing NEPA (40 CFR 1500), and 32 CFR 651 Environmental Analysis Of Army Actions. After careful review of the potential impacts, I conclude that implementation of any of the alternatives would not result in a significant impact on the quality of the human or natural environment. I also affirm that the Army is committed to implementing the Best Management Practices described in the EA. Therefore, issuance of a Finding of No Significant Impact is warranted, and preparation of an Environmental Impact Statement is not required.

I have also concluded that the No Action Alternative would not support Congressional requirements under the BRAC law (Public Laws 101-510 and 107-107); consequently, it

has not been selected for implementation. Alternative 2 (Early Transfer Disposal) appears to offers the greatest flexibility in implementation and the best mix of future development in support of the City of Columbus, Ohio and the Army.

## **PUBLIC AVAILABILITY**

The EA and Draft FNSI have undergone an appropriate 30-day public comment period. This was in accordance with requirements specified in 32 CFR Part 651.



Date 30 Jul 07

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FOR THE COMMANDER

Thomas J. Kienlen  
Deputy, Management and Support  
88th Regional Readiness Command

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**ENVIRONMENTAL ASSESSMENT  
FOR REALIGNMENT OF  
FORT HAYES MEMORIAL US ARMY RESERVE CENTER,  
COLUMBUS, OHIO  
FACID OH013**

*Approved by:*



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Thomas J. Kienlen  
Deputy, Management and Support  
88th Regional Readiness Command

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## EXECUTIVE SUMMARY

### ES 1 INTRODUCTION

On September 8, 2005, the Defense Base Closure and Realignment (commonly referred to as BRAC) Commission recommended closure and disposal of the Fort Hayes Memorial US Army Reserve Center (USARC) in Columbus, Ohio. This recommendation was approved by the President on September 15, 2005, and forwarded to Congress. Congress did not alter the BRAC Commission's recommendations, and on November 9, 2005, the recommendation became law. The BRAC Commission's recommendation must now be implemented as provided for in the Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended.

### ES 2 PROPOSED ACTION

The BRAC-directed action as quoted by BRAC Commission is to:

*“Close Fort Hayes US Army Reserve Center, Columbus, OH, and Whitehall US Army Reserve Center, Whitehall, OH, and relocate units to a new Armed Forces Reserve Center on Defense Supply Center Columbus, OH.”<sup>1</sup>*

This Environmental Assessment (EA) will address the potential environmental effects of the Fort Hayes Memorial USARC realignment, closure and disposal, and the potential community reuse of the area. The potential effects of the Whitehall Memorial USARC closure have been addressed by separate National Environmental Policy Act (NEPA) analysis.

The Fort Hayes Memorial USARC encompasses approximately 10.78 acres and three buildings in the southwest corner of the Fort Hayes National Historic District at 530 Jack Gibbs Boulevard in Franklin County, Columbus, Ohio. To implement the BRAC-directed Proposed Action, the Army will realign 42 permanent party military personnel and 790 part-time Reserve personnel to the Defense Supply Center Columbus, Ohio (DSCC).

Presently, the Army Reserve personnel utilize two of the three buildings on the site. These two buildings are the USAR Center, building 300 (39,869 square feet {SF}) and the Organizational Maintenance Shop (OMS), building 301 (7,498 SF). The third building, a historic former Guard House, building 118 (1914 SF), that was constructed in 1896, is located just east of the USAR Center Building. This building is currently closed but is individually listed on the National Register of Historic Places (NRHP). A Military Equipment Parking (MEP) area and privately owned vehicle (POV) parking area are

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<sup>1</sup> BRAC Legislative Language from Public Law 101-510 – Text of 2005 Defense Base Closure and Realignment Commission Final And Approved Recommendations, A Bill To Make Recommendations To The President Under The Defense Base Closure and Realignment Act of 1990.

also contained within the property. Chain-link security fencing encloses the MEP area and OMS Building.

## **ES 3 ALTERNATIVES**

### **ES 3.1 Alternative 1, No Action Alternative**

The No Action Alternative will be included as required by the Council on Environmental Quality (CEQ) regulations. The No Action Alternative would be to continue the missions at BRAC-affected installations as they were being performed in November 2005.

Because the law mandates closure and realignment of installations, this alternative would not be feasible. Nevertheless, it serves as a baseline alternative against which other alternatives are compared.

### **ES 3.2 Impacts of Army Realignment, Closure and Disposal**

The EA also reviews the potential impacts of three potential implementation alternatives. These alternatives include:

- Alternative 2, Early Transfer Disposal;
- Alternative 3, Traditional Disposal; and
- Alternative 4, Caretaker Status Prior to Disposal.

Under each of these three disposal alternatives, the Army would include encumbrances designed to ensure protection of the historic Guard House, as well as the future users of the property from potential lead-based paint, asbestos containing materials and polychlorinated biphenyls.

### **ES 3.3 Potential Impacts of Community Reuse**

The Army decision maker does not have direct control over the following likely development intensities the community will use for the Fort Hayes Memorial USARC. The Army has evaluated the potential impacts associated with each of these intensities; however, the Army will not reach a decision concerning which of these alternatives the community will choose to implement. Additionally, the Army expresses no preference with respect to reuse scenarios because decisions implementing reuse will be made by other entities. Potential reuse scenarios considered and discussed included the following:

- Scenario A, Medium Intensity Reuse;
- Scenario B, Medium-High Intensity Reuse.

## **ES 4 ENVIRONMENTAL CONSEQUENCES**

As analyzed and discussed in the EA, direct, indirect, and cumulative impacts of each of the Implementation Alternatives and the No Action Alternative were considered. No significant impacts (either beneficial or adverse) were identified. Therefore, issuance of a FNSI is warranted, and preparation of an Environmental Impact Statement is not required.

## **ES 5 MITIGATION SUMMARY**

No significant adverse or significant beneficial impacts were identified in the EA or are anticipated through implementing any of the proposed action alternatives or the No Action Alternative. Consequently, no mitigation measures are required to reduce impacts to non-significant levels as part of this EA. As noted in the description of the potential implementation alternatives, each of the potential implementation alternatives includes encumbered disposal in order to ensure protection of the Fort Hayes Memorial USARC gate house, which is listed on the National Register of Historic Places, and to ensure protection of future users of the facility from potential environmental issues at the site.

However, in association with the proposed action, a number of Best Management Practices (BMPs) would be implemented with the proposed construction and renovation activities, regardless of the alternative selected. These measures are designed to avoid, rectify, or reduce adverse impacts. For those adverse impacts that cannot be avoided, the BMPs have been developed to include features designed to: protect, maintain, restore, or enhance environmental conditions.

## **ES 6 CONCLUSIONS**

As analyzed and discussed in the EA, direct, indirect, and cumulative impacts of each of the Implementation Alternatives and the No Action Alternative have been considered and no significant impacts (either beneficial or adverse) have been identified.

Therefore, issuance of a FNSI is warranted, and preparation of an Environmental Impact Statement is not required.

Therefore, any of the alternatives considered could be implemented. However, the No Action Alternative would not support Congressional requirements under the BRAC law (Public Laws 101-510 and 107-107); consequently, it has not been selected for implementation.

Alternative 2 appears to offers the greatest flexibility and most advantages for the Army during the realignment, closure and disposal of the facility, and the best mix of future development in support of the City of Columbus, Ohio.

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# SECTION 1

## PURPOSE, NEED, AND SCOPE

### 1.1 INTRODUCTION

Fort Hayes United States Army Reserve Center (USARC) is located in Columbus, Ohio. Presently, the Fort Hayes' primary mission is to provide support and training facilities for the US Army Reserve including the 391st Military Police Battalion, the 342nd Military Police Company, and the 375th Criminal Investigation Detachment. The location of the Fort Hayes Memorial USARC is illustrated on Figure 1-1, while Figure 1-2 provides a more detailed view of the remaining US Army facilities at the location, which are the subject of this analysis.

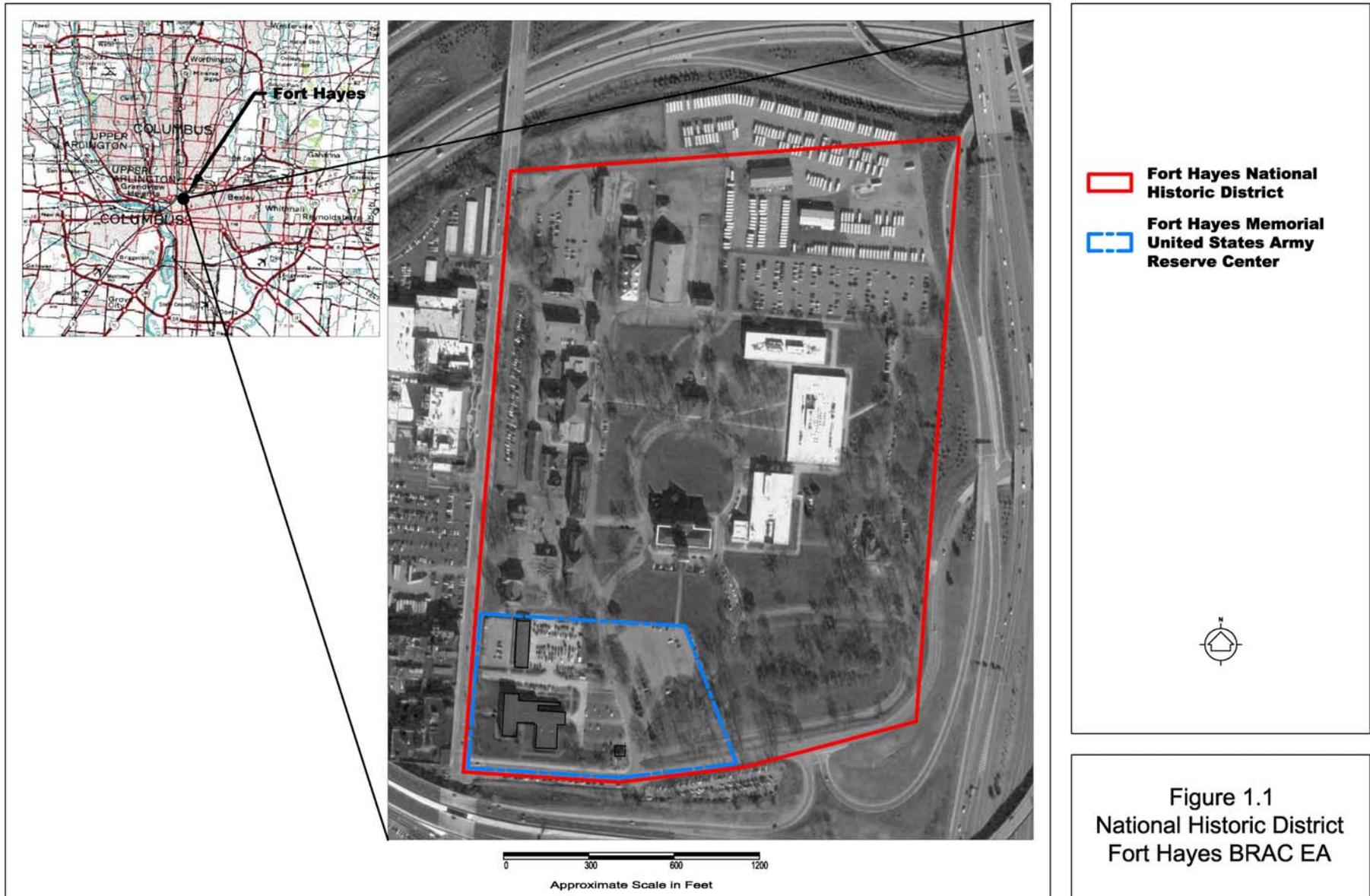
On September 8, 2005, the Defense Base Closure and Realignment (BRAC) Commission recommended closing the Fort Hayes Memorial USARC and realignment of essential missions to other installations, and disposal of the Fort Hayes Memorial USARC. This recommendation was approved by the President on September 15, 2005, and forwarded to Congress. Congress did not alter the BRAC Commission's recommendations, and on November 9, 2005, the recommendation became law. The BRAC Commission's recommendation must now be implemented as provided for in the Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended.

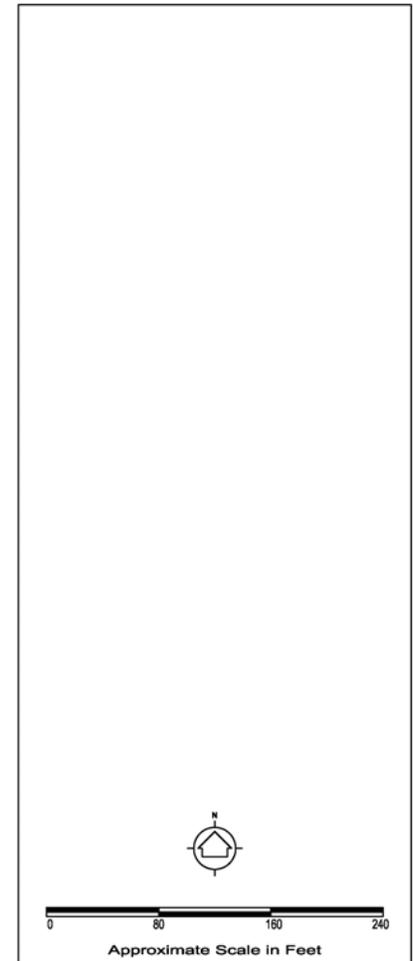
The deactivated installation property is excess to Army military need and will be disposed of according to applicable laws, regulations, and national policy. Pursuant to the National Environmental Policy Act of 1969 (NEPA) and its implementing regulations. The Army has prepared this environmental assessment (EA) to address the environmental and socioeconomic impacts of realigning, closing, and disposing of the property and the reasonable, foreseeable reuse alternatives. Details on the Proposed Action are set forth at Section 2.3.

### 1.2 PURPOSE AND NEED FOR THE PROPOSED ACTION

The purpose of the Proposed Action is to implement the BRAC Commission's recommendation pertaining to the Fort Hayes Memorial USARC.

The need for the Proposed Action is to improve the ability of the Nation to respond rapidly to challenges of the 21<sup>st</sup> Century. The Army is legally bound to defend the United States (US) and its territories, support national policies and objectives, and defeat nations responsible for aggression that endangers the peace and security of the US. To carry out these tasks, the Army must adapt to changing world conditions and must improve its capabilities to respond to a variety of circumstances across the full spectrum of military operations.





**Figure 1.2**  
**Fort Hayes Location**  
**Fort Hayes BRAC EA**

In previous rounds of BRAC, the explicit goal was to save money and downsize the military. In the 2005 BRAC round, the Department of Defense (DoD) sought to reorganize its installation infrastructure to most efficiently support its forces, increase operational readiness and facilitate new ways of doing business. Thus, BRAC represents more than cost savings. It supports advancing the goals of transformation, improving military capabilities, and enhancing military value. The Army needs to carry out the BRAC recommendations at Fort Hayes to achieve the objectives for which Congress established the BRAC process.

### **1.3 SCOPE**

This EA has been developed in accordance with the NEPA of 1969 and implementing regulations issued by the President's Council on Environmental Quality (CEQ) and the Army. Its purpose is to inform decision makers and the public of the likely environmental consequences of the Proposed Action and alternatives.

This EA identifies, documents, and evaluates environmental effects of the closure and disposal of the Fort Hayes Memorial USARC. An interdisciplinary team of environmental scientists, biologists, planners, economists, engineers, archaeologists, historians, and military technicians has analyzed the Proposed Action and alternatives in light of existing conditions and has identified relevant beneficial and adverse effects associated with the action. The Proposed Action is described in Section 2, and alternatives, including the No Action Alternative, are described in Section 3. Conditions existing as of November 2005, considered the environmental "baseline" conditions, are described in Section 4, Affected Environment and Environmental Consequences. The expected effects of the Proposed Action, also described in Section 4, are presented immediately following the description of baseline conditions for each environmental resource addressed in the EA. Section 4 also addresses the potential for cumulative effects, and mitigation measures are identified where appropriate.

The Defense Base Closure and Realignment Act of 1990 specifies that NEPA does not apply to actions of the President, the Commission, or the DoD, except "(i) during the process of property disposal, and (ii) during the process of relocating functions from a military installation being closed or realigned to another military installation after the receiving installation has been selected but before the functions are relocated (Sec. 2905(c)(2)(A), Public Law 101-510, as amended). The law further specifies that in applying the provisions of NEPA to the process, the Secretary of Defense and the secretaries of the military departments concerned do not have to consider "(i) the need for closing or realigning the military installation which has been recommended for closure or realignment by the Commission, (ii) the need for transferring functions to any military installation which has been selected as the receiving installation, or (iii) military installations alternative to those recommended or selected (Sec. 2905(c)(2)(B)). The Commission's deliberation and decision, as well as the need for closing or realigning a military installation, are exempt from NEPA. Accordingly, this EA does not address the need for closure and/or disposal.

## 1.4 PUBLIC INVOLVEMENT

The Army invites public participation in the NEPA process. Consideration of the views and information of all interested persons promotes open communication and enables better decision-making. All agencies, organizations, Native American groups, and members of the public having a potential interest in the Proposed Action, including minority, low-income, and disadvantaged persons and groups, are urged to participate in the decision making process.

Public participation opportunities with respect to this EA and decision making on the Proposed Action are guided by 32 CFR Part 651. Upon completion, the EA will be made available to the public for 30 days, along with a draft Finding of No Significant Impact (FNSI). At the end of the 30-day public review period, the Army will consider any comments submitted by individuals, agencies, or organizations on the Proposed Action, the EA, or draft FNSI. As appropriate, the Army may then execute the FNSI and proceed with implementation of the Proposed Action. If it is determined prior to issuance of a final FNSI that implementation of the Proposed Action would result in significant impacts, the Army will publish in the *Federal Register* a notice of intent to prepare an Environmental Impact Statement (EIS), commit to mitigation actions sufficient to reduce impacts below significance levels, or not take the action.

The EA and the Draft FNSI are available for review at the Department of the Army BRAC Environmental Web Site; [http://www.hqda.army.mil/acsim/brac/env\\_ea\\_review.htm](http://www.hqda.army.mil/acsim/brac/env_ea_review.htm) or at the following libraries:

- Columbus Metropolitan Library, Whitehall Branch, 4371 E. Broad Street, Whitehall, OH 43213;
- Columbus Metropolitan Library, Livingston Branch, 3434 Livingston Avenue, Columbus, OH 43227;
- Columbus Metropolitan Library, Driving Park Branch, 1566 E. Livingston Avenue, Columbus, OH 43205

Additional information on the hours of operation and maps to these locations is located at <http://www.columbuslibrary.org/index.cfm> or is available by calling the Columbus Metropolitan Library at telephone number 614-645-2275.

Comments on the EA and Draft FNSI should be submitted no later than 30 days after the publication of the Notice of Availability.

Throughout this process, the public may obtain information on the status and progress of the Proposed Action through Parsons by calling Mr. Darrel Sisk at 314-434-2900. Comments on the EA and Draft FNSI should be provided to the following address:

Mr. Darrel Sisk  
Parsons  
400 Woods Mill Road South, Suite 330  
Chesterfield, MO 63017

## 1.5 REGULATORY FRAMEWORK

Numerous factors contribute to Army decisions relating to disposal of installation property. The Base Closure Act triggers action under several other federal statutes and regulations. In addition, the Army must adhere to specific rules and procedures pertaining to transfer of federal property as well as executive branch policies. There are also practical concerns such as identifying base assets to allow for disposal in a manner consistent with statutory and regulatory guidance.

The two laws that govern real property disposal in BRAC are the Defense Base Closure and Realignment Act of 1990 (Public Law 101-510, as amended) and the Federal Property and Administrative Services Act of 1949 (Title 40 of the United States Code [U.S.C.], Sections 471 and following, as amended). The latter is implemented by the Federal Property Management Regulations at Title 41 of the Code of Federal Regulations (CFR), Subpart 101-47. The disposal process is also governed by 32 CFR Part 174 (*Revitalizing Base Closure Communities*) and 32 CFR Part 175 (*Revitalizing Base Closure Communities—Base Closure Community Assistance*), regulations issued by DoD to implement BRAC law, and matters known as the Pryor Amendment and the President's Program to Revitalize Base Closure Communities.

A decision on how to proceed with the Proposed Action rests on numerous factors such as mission requirements, schedule, availability of funding, and environmental considerations. In addressing environmental considerations, the Fort Hayes Memorial USARC is guided by relevant statutes (and their implementing regulations) and Executive Orders (EO) that establish standards and provide guidance on environmental and natural resources management and planning. These include the Clean Air Act, Clean Water Act, Noise Control Act, Endangered Species Act, National Historic Preservation Act, Archaeological Resources Protection Act, Resource Conservation and Recovery Act, and Toxic Substances Control Act. EOs bearing on the Proposed Action include:

- EO 11988 (Floodplain Management),
- EO 11990 (Protection of Wetlands),
- EO 12088 (Federal Compliance with Pollution Control Standards),
- EO 12580 (Superfund Implementation),
- EO 12873 (Federal Acquisition, Recycling and Waste Prevention),
- EO 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations),
- EO 13045 (Protection of Children from Environmental Health Risks and Safety Risks),
- EO 13101 (Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition),

- EO 13123 (Greening the Government Through Efficient Energy Management),
- EO 13148 (Greening the Government Through Leadership in Environmental Management),
- EO 13175 (Consultation and Coordination with Indian Tribal Governments), and
- EO 13186 (Responsibilities of Federal Agencies to Protect Migratory Birds).

These authorities are addressed in various sections throughout this EA when relevant to particular environmental resources and conditions. The full text of the laws, regulations, and EOs is available on the Defense Environmental Network & Information Exchange Web site at <http://www.denix.osd.mil>.

## 1.6 OTHER REUSE REGULATIONS AND GUIDANCE

DoD's Office of Economic Adjustment published its *Community Guide to Base Reuse* in May 1995. The guide describes the base closure and reuse processes that have been designed to help with local economic recovery and summarizes the many assistance programs administered by DoD and other agencies. DoD published its *DoD Base Reuse Implementation Manual* to serve as a handbook for the successful execution of reuse plans. DoD and the Department of Housing and Urban Development have published guidance (at 32 CFR Part 175) required by Title XXIX of the National Defense Authorization Act for Fiscal Year 1994. The guidance establishes policy and procedures, assigns responsibilities, and delegates authority to implement the President's Program to Revitalize Base Closure Communities (July 2, 1993), as endorsed through Congressional enactment of the Pryor Amendment.

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# SECTION 2

## PROPOSED ACTION

### 2.1 INTRODUCTION

This section describes the Army's Proposed Action for carrying out the BRAC Commission's recommendations. The proposed action (the Army's primary action) is to dispose of the excess property as mandated by the BRAC legislation, Public Law 101-510 and 107-107, at the Fort Hayes Memorial USARC during Fiscal Years (FY) 05-11. Redevelopment of the Fort Hayes Memorial USARC by others is a secondary action resulting from disposal.

The BRAC-directed action, as quoted from the BRAC Commission, is to:

*"Close Fort Hayes US Army Reserve Center, Columbus, OH, and Whitehall US Army Reserve Center, Whitehall, OH, and relocate units to a new Armed Forces Reserve Center on Defense Supply Center Columbus, OH."*<sup>1</sup>

This EA will address the potential environmental effects of the Fort Hayes Memorial USARC realignment, closure, and disposal, along with the anticipated community reuse of the area. The potential effects of the Whitehall Memorial USARC (as a separate stand alone Reserve Center) realignment, closure, disposal, and community reuse have been addressed by separate NEPA analysis.

The Fort Hayes Memorial USARC encompasses approximately 10.78 acres and three buildings in the southwest corner of the Fort Hayes National Historic District at 530 Jack Gibbs Boulevard in Columbus, Ohio.

### 2.2 PROPOSED IMPLEMENTATION

As noted in the introduction, potential environmental effects of the Fort Hayes Memorial USARC realignment, closure, and disposal, along with anticipated community reuse will be considered in this EA.

#### 2.2.1 Army Realignment

To Implement the BRAC-directed Proposed Action, the Army will realign 42 permanent party military personnel and 790 part-time Reserve personnel to the Defense Supply Center Columbus, Ohio (DSCC). For the purposes of this document, impact assessment will be based on full-time equivalent Reserve personnel. This number is derived by multiplying the number of Reserve personnel (790) by 0.267. The 0.267 conversion factor was derived based on most Reserve personnel completing four paid

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<sup>1</sup> BRAC Legislative Language from Public Law 101-510 – Text of 2005 Defense Base Closure and Realignment Commission Final And Approved Recommendations, A Bill To Make Recommendations To The President Under The Defense Base Closure and Realignment Act of 1990.

drills per month and 14 days of paid annual training per year. This level of involvement would result in the average Reservist completing approximately 62 days for pay per year compared to approximately 232 days for pay for a normal position. Therefore, for impact assessment purposes, approximately 253 full-time equivalent personnel (790 times 0.267 equals approximately 211 personnel plus 42 permanent personnel resulting in approximately 253 full-time equivalent personnel) will be realigned from the Fort Hayes Memorial USARC.

### **2.2.2 Army Closure**

Under the BRAC law, the Army must initiate all realignments not later than September 15, 2007, and complete all realignments not later than September 15, 2011<sup>1</sup>.

Implementation of the Proposed Action would occur over approximately 5 years. Facilities construction would be synchronized to meet the needs, on a priority basis, of units being relocated.

The schedule for implementation of the Proposed Action must balance facilities construction timeframes all within the 6-year limitation of the BRAC law.

Presently, the Army routinely uses two of the three buildings at Fort Hayes Memorial USARC. These two buildings are the USAR Center, building 300 (39,536 square feet {SF}) and the Organizational Maintenance Shop (OMS), building 301 (7,498 SF). The third, a former guardhouse, building 118 (1,914 SF), was constructed in 1896 and is located just southeast of the US Army Reserve Building. This building is currently closed but is individually listed on the National Register of Historic Places (NRHP). A Military Equipment Parking (MEP) area and privately owned vehicle (POV) parking area are also contained within the property. Chain-link security fencing encloses the MEP area and OMS Building.

### **2.2.3 Army Disposal**

#### **2.2.3.1 Real Estate Disposal Process**

BRAC legislation and process allow for the Army to dispose of property no longer required to support Army missions through a number of methods. As proposed, the Fort Hayes Memorial USARC property will be disposed of as a single parcel, as a public benefit discount conveyance, for school, classroom, and educational purposes.

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<sup>1</sup> Section 2904(a), Public Law 101-510, as amended, provides that the Army must "... initiate all closures and realignments no later than 2 years after the date on which the President transmits a report [by the BRAC Commission] to the Congress ... containing the recommendations for such closures or realignments; and ... complete all such closures and realignments no later than the end of the 6-year period beginning on the date on which the President transmits the report ... " The President took the specified action on September 15, 2005.

The following discussion summarizes information concerning the disposal processes available to the Army. For additional information on these processes see Base Realignment and Closure Guidelines for Compliance with National Environmental Policy Act (DA, 2006).

- **Disposal as a Package or in Parcels.** Army policy provides that, upon completion of all required hazardous substance cleanup activities and cleanup that may be required for other environmental conditions such as asbestos, fuel, or other substances, property subject to disposal under BRAC should generally be disposed of as a single entity. Alternatively, the Army may dispose of the property in parcels. After identification of parcels upon completion of cleanup, disposal may occur to meet objectives related to reuse goals, tax revenue generation, and job creation.
- **Disposal Process.** Methods available to the Army for property disposal include public benefit discount conveyance, economic development conveyance, negotiated sale, and competitive sale.
  - **Public Benefit Discount Conveyance.** State or local government entities may obtain property at less than fair market value when sponsored by a Federal agency for uses that would benefit the public such as education, parks and recreation, wildlife conservation, or public health.
  - **Economic Development Conveyance.** The 1994 Defense Authorization Act provides for conveyance of property to a Land Redevelopment Authority (LRA) at or below fair market value using flexible payment terms. The Economic Development Conveyance (EDC) is designed to promote economic development and job creation in the local community. An EDC is not intended to supplant other Federal property disposal authorities and cannot be used if the proposed reuse can be accomplished through another authority. If certain criteria are met for a rural installation, an EDC may be made at no cost. To qualify for an EDC, the LRA must submit a request to the Department of the Army describing its proposed economic development and job creation program.
  - **Negotiated Sale.** The Army would negotiate the sale of the property to state or local governmental entities including tribal governments or private parties at fair market value.
  - **Competitive Sale.** Sale to the public would occur through either an invitation for bids or an auction.
- **DoD and Federal Agency Screening.** The Army began the screening process by offering the excess property at Fort Hayes to other DoD agencies and Federal agencies for their potential use. That screening process for the property resulted in no requests for its use by other agencies.

- **Land Redevelopment Authority Screening.** Pursuant to the Base Closure Community Redevelopment and Homeless Assistance Act of 1994, property that is surplus to the Federal government's needs is to be screened through an LRA's soliciting notices of interest from state and local governments, representatives of the homeless, and other interested parties. An LRA's outreach efforts to potential users or recipients of the property include working with the Department of Housing and Urban Development and other Federal agencies that sponsor public benefit transfers under the Federal Property and Administrative Services Act. The LRA's reuse plan incorporates the notices of interest submitted to the LRA and reflects an overall reuse strategy for the installation.
- **Public Agency Screening.** Consistent with the Federal Property and Administrative Services Act, screening notices have been sent to Federal agencies that approve or sponsor public benefit conveyances and appropriate state and local agencies in the vicinity of the property. The Army initiated this screening after coordination with the LRA. Typically the Army might receive requests for the following types for transfer of property in response to this screening effort:
  - **Park Use.** On behalf of the city of Columbus, the Department of the Interior might request transfer of land and/or facilities for use as a park. This use would be coordinated with the LRA, and addressed in the reuse plan, if appropriate.
  - **Historic monument.** On behalf of the city of Columbus, the Department of the Interior might request transfer of land and/or facilities as a historic monument. This use would be coordinated with the LRA, and addressed in the reuse plan, if appropriate.
  - **Educational museum.** On behalf of the city of Columbus, the Department of Education might request transfer of land and/or facilities as an educational museum. This use would be coordinated with the LRA, and addressed in the reuse plan, if appropriate.
  - **Museum.** On behalf of the city of Columbus or a private organization, the Department of the Interior might request transfer of land and/or facilities as a museum. This use would be coordinated with the LRA, and addressed in the reuse plan, if appropriate.
  - **School, classroom, and educational purposes.** On behalf of city of Columbus, the Department of Education might request transfer of land and/or facilities for educational uses. This use would be coordinated with the LRA, and addressed in the reuse plan, if appropriate. Based on the characteristics of Fort Hayes and the prior disposal actions that have occurred at Fort Hayes, it is

anticipated that the Department of Education will make such a request for the entire parcel (including the land and facilities remaining at Fort Hayes). If a request is received, the Army will consult with the LRA and, if found necessary, enter negotiations with various entities to determine appropriate courses of action for transfer or disposal of this property. Given the nature of the buildings and facilities, it is anticipated that these negotiations would result in a transfer and reuse agreement similar to the ones conducted in 1971, 1991, and 2006, in which the Columbus Public School District purchased buildings and portions of the Fort Hayes property to develop the Fort Hayes Alternative Vocational High School.

### 2.2.3.2 Caretaker of Property Until Disposal

Presently, it is expected that the Fort Hayes Memorial USARC property would be transferred to the new owner immediately following closure. Thereafter, the property would not require caretaker status.

Prior to disposal should the Army find it necessary to place Fort Hayes in caretaker status for an indefinite period; then, the Army would employ two levels of maintenance.

- **Initial Maintenance.** From the time of operational closure until conveyance of the property, the Army would provide for maintenance procedures to preserve and protect those facilities and items of equipment needed for reuse in an economical manner that facilitates redevelopment. In consultation with the LRA and consistent with available funding, the Army would determine required levels of maintenance of facilities and equipment for an initial period following operational closure. The levels of maintenance during this initial period would not exceed maintenance standards in effect before approval of the closure decision. Maintenance would not include any property improvements such as construction, alteration, or demolition. Demolition could occur if necessary for health, safety, or environmental reasons or if it were economically justified in lieu of continued maintenance.
- **Long-term Maintenance.** If property were not transferred within an agreed-to period of time and the LRA were not actively seeking reuse opportunities for available facilities, the Army would reduce maintenance levels to the minimum level for surplus government property required by 41 CFR 101-47.402, 41 CFR 101-47-4913, and Army Regulation 420-70 (*Buildings and Structures*). Long-term maintenance would not be focused on keeping the facilities in a state of repair to permit rapid reuse. Rather, maintenance during this period would consist of minimal activities intended primarily to ensure security and to avoid deterioration. This reduced level of maintenance would continue indefinitely until disposal.

### 2.2.3.3 Cleanup of Contaminated Sites

Outside of the physical moving of equipment, such as office supplies, no major pre-disposal actions are expected to be needed.

Some hazardous materials (e.g., petroleum products) are associated with the OMS. There is no evidence that any of these products have been spilled or released on the property (which have not been previously controlled and cleaned up), and no underground storage tanks have historically been located on the property or are currently located on the property. All noted above ground storage tanks (typically 55-gallon or smaller containers) have secondary containment. An Asbestos, Polychlorinated Biphenyl (PCBs), Lead-Based Paint (LBP), and Radon Survey was conducted on the Reserve Center and the OMS. The results of this survey were published in the 2005 Environmental Survey Report.

This survey revealed that it is likely PCBs materials are present in light ballasts and transformers at the property.

Asbestos containing materials (ACM) are known to exist in building materials. LBP was not found at either of the buildings. It is suspected that LBP is present in the guardhouse.

### 2.2.4 Community Reuse

The Army has established a unique process for performing NEPA analysis and documentation of potential impacts associated with Army property disposal and reuse. The process is designed to comply with NEPA and related laws, protect and enhance the affected environment, and respond to local communities' needs and wishes in keeping with Army objectives for assisting in rapid economic revitalization.

The Army's approach is to identify the primary and secondary actions associated with BRAC; to describe the known or probable reuse alternatives in generic terms based on their reuse "intensity level," but with as much specificity as practicable; and to evaluate the direct, indirect, and cumulative effects of both disposal and reuse.

The primary action evaluated is disposal of the excess property made available by the legislatively mandated closure. This is an action for which the Army has responsibility, and both the authority and ability to control. The secondary action is reuse development of the property after ownership is transferred, an action taken by others as a result of the Army's decision to dispose of the property.

Identification of recipients of the property being disposed of at the Fort Hayes Memorial USARC is governed by expressions of interest submitted by potential recipients in response to the Army's Declaration of Excess Property and Determination of Surplus Property. As a result of the screening process (see Section 2.3.4), the installation would be available for transfer or conveyance to and subsequent reuse by the Fort Hayes Memorial USARC LRA or other entities.

The installation's 10.78 acres, including the three buildings present on the property, are to be disposed of from DoD ownership, transferred to a new owner, and reused. The only reuse restriction involves the former guardhouse (and the surrounding area).

Because this building is individually listed on the NRHP, its integrity as a Historic Property must be upheld by the subsequent owner(s) of the property. Any alterations planned for this building should be coordinated through the State Historic Preservation Officer (SHPO) and a required programmatic agreement between the SHPO and the new property owner.

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# SECTION 3

## ALTERNATIVES

### 3.1 INTRODUCTION

A basic principle of NEPA is that an agency should consider reasonable alternatives to a Proposed Action. Considering alternatives helps to avoid unnecessary impacts and allows analysis of acceptable ways to achieve the stated purpose. To warrant detailed evaluation, an alternative must be reasonable. To be considered reasonable, an alternative must be ready for decision-making (any necessary preceding events having taken place), affordable, capable of implementation, and satisfactory with respect to meeting the purpose of and need for the action.

Although Public Law 101-510 eliminates the need to decide whether to close and dispose of an installation, it does not eliminate the requirement for an environmental analysis of how the closure and disposal is conducted for the designated installation. Alternatives of how the closure and disposal take place might include: phasing the closure or transferring ownership to different entities.

For this proposed action, the DoD has identified a no action alternative and two action alternatives based on different entities procuring the Fort Hayes Memorial USARC. These alternatives are described below.

### 3.2 DEVELOPMENT OF ALTERNATIVES

Disposal actions involve consideration of four alternatives types: early transfer disposal, traditional disposal, caretaker, and no action. For reuse actions, the Army considers two approaches in its development of alternatives. As a basis for analysis, one approach uses the range of alternatives developed by the LRA and included in its approved reuse plan (when available). The other approach, which is followed by the Army in the absence of a final community reuse plan, is more generic. Following consideration of the alternatives related to disposal, five “generic” but representative levels of probable reuse intensity (low, low/medium, medium, medium/high, and high) are considered using the best information available. Both approaches identify and analyze the environmental effects of activities associated with a range of reasonable reuse alternatives to provide the decision-maker with a meaningful analysis encompassing the most likely (or probable) reuse scenarios.

As noted in the introduction and the Purpose and Need discussion located in Section 2 of this EA, the proposed action at Fort Hayes Memorial USARC includes:

- the realignment of personnel,
- closure of the Fort Hayes Memorial USARC,
- disposal of real property at Fort Hayes Memorial USARC, and
- the ultimate community reuse of the Fort Hayes Memorial USARC area.

Consequently, a set of alternatives has undergone development and initial screening within the framework of these four elements.

### **3.2.1 Army Realignment Alternatives**

Although Public Law 101-510 eliminates the need to decide whether to close and dispose of an installation, it does not eliminate the requirement for an environmental analysis of how the closure and disposal is conducted for the designated installation. Consequently, the following alternatives have been considered concerning the potential realignment of personnel from the Fort Hayes Memorial USARC to DSCC.

#### **3.2.1.1 No Action Alternative**

Under the No Action Alternative, the Army would continue its mission at Fort Hayes Memorial USARC as it existed in the fall of 2005. Because the BRAC Commission's recommendations now have the force of law, continuation of the Fort Hayes Memorial USARC mission is not possible. Under BRAC Law, the Army must initiate closure of installations within two years after the President submits the BRAC report to Congress. Although the No Action Alternative is not possible to implement without further Congressional action, it serves as a baseline alternative against which other alternatives can be evaluated.

#### **3.2.1.2 Total Early Move Alternative**

A "Total Early Move" Alternative would involve relocating all personnel and missions from the Fort Hayes Memorial USARC as soon as possible, prior to the completion of all receiving facilities. This action could shorten the time that these missions continue at Fort Hayes Memorial USARC, and maximize savings to the Army associated with reduced operations at Fort Hayes Memorial USARC. However, this action would severely compromise the ability of the units currently using the Fort Hayes Memorial USARC to accomplish their missions, and the quality of training and operations for units currently stationed at Fort Hayes. Furthermore, a Total Early Move would have a more abrupt effect on communities at Fort Hayes Memorial USARC because the transitions would occur over a shorter period of time. Given these factors, it was determined that this alternative is neither viable nor reasonable. Therefore, no further consideration of the Total Early Move Alternative will be provided in this EA.

#### **3.2.1.3 Total Late Move Alternative**

A "Total Late Move" Alternative would involve retention of all personnel and missions at the Fort Hayes Memorial USARC until all facilities required to support all relocated missions are available. This alternative would allow training operations to continue at Fort Hayes Memorial USARC for the maximum amount of time. However, implementation of this alternative would result in the following impacts:

- Delaying the initial property disposal and reuse of lands at Fort Hayes Memorial USARC; thereby resulting in increased economic impact on the community surrounding Fort Hayes.
- Delaying full operations resulting in unnecessary additional maintenance and operations expenses at Fort Hayes Memorial USARC.
- Requiring the maintenance of completed and available facilities until all facilities are completed and personnel relocated. These maintenance costs would be wasted since the facilities would be unoccupied.
- A more abrupt effect on community near Fort Hayes because the transition would occur over a shorter time.

Given these factors, it was determined that although this alternative is feasible, it is not reasonable for the Army to implement this alternative because of increased operational costs, and increased impacts on the civilian communities near Fort Hayes Memorial USARC and DSCC. Therefore, no further consideration of the Total Late Move Alternative will be provided in this EA.

#### **3.2.1.4 Phased Move Alternative (Army's Proposed Action)**

This alternative would involve the relocation of personnel (and related missions and equipment) on a phased schedule tied to the availability of facilities to support specific mission requirements. As noted in subsection 2.2.1, the Army proposes to implement the BRAC-directed realignment of the 42 permanent party military personnel and 790 part-time Reserve personnel to DSCC. For the purposes of this document, impact assessment will be based on a full-time equivalent personnel number. This number is derived by multiplying the part-time (Reserve) personnel number by 0.267. Therefore, for impact assessment purposes, approximately 253 full-time equivalent personnel will be realigned from the Fort Hayes Memorial USARC to DSCC. Implementation of the Proposed Action would occur over approximately 5 years. Facilities construction at DSCC would be synchronized to meet the needs, on a priority basis, of units being relocated. The schedule for implementation of the Proposed Action must balance facilities construction timeframes, all within the 6-year limitation of the BRAC law.

Impact analyses included in this EA has been prepared based on the assumption that any implementation plan will be accomplished using a phased approach.

#### **3.2.2 Army Closure**

As noted earlier, although Public Law 101-510 eliminates the need to decide whether to close an installation, it does not eliminate the requirement for an environmental analysis of how the closure is conducted for the designated installation. Consequently, the following alternatives have been considered concerning the closure of the Fort Hayes Memorial USARC.

### 3.2.2.1 No Action Alternative

The No Action Alternative for this element of the planned action would assess the impacts of continuing to operate the Fort Hayes Memorial USARC. Under the BRAC law, the Army must initiate all realignments not later than September 15, 2007, and complete all realignments not later than September 15, 2011. Consequently, this alternative would violate existing laws and therefore would be unreasonable.

However, the No Action Alternative does provide for a comparison of conditions and related impacts for the current (pre-BRAC) condition and those that are expected to occur under the BRAC action implementation scenarios.

### 3.2.2.2 Army Closure Following Complete Realignment

This alternative would close the Fort Hayes Memorial USARC following the phase realignment of personnel to DSCC. In accordance with BRAC law, the Army must initiate all realignments not later than September 15, 2007, and complete all realignments not later than September 15, 2011.

Waiting for the complete realignment of personnel and from Fort Hayes Memorial USARC would result in the following impacts:

- Delaying the initial property closure, disposal and reuse of lands and facilities at Fort Hayes Memorial USARC; thereby resulting in increased economic impact on the community surrounding Fort Hayes.
- Delay closing individual facilities at Fort Hayes Memorial USARC, thereby resulting in unnecessary, additional maintenance and operations expenses at Fort Hayes Memorial USARC.

Given these factors, it was determined that although this alternative is feasible, it is not reasonable for the Army to implement this alternative because of increased operational costs, and increased impacts on the civilian communities near Fort Hayes Memorial USARC and DSCC. Therefore, no further consideration of Army Closure Following Complete Realignment will be provided in this EA.

### 3.2.2.3 Army Closure Following Phased Realignment (Army's Proposed Action)

This alternative would close the Fort Hayes Memorial USARC following the phased realignment of personnel to DSCC. As facilities at Fort Hayes

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1 Section 2904(a), Public Law 101-510, as amended, provides that the Army must "... initiate all closures and realignments no later than 2 years after the date on which the President transmits a report [by the BRAC Commission] to the Congress ... containing the recommendations for such closures or realignments; and ... complete all such closures and realignments no later than the end of the 6-year period beginning on the date on which the President transmits the report ... " The President took the specified action on September 15, 2005.

Memorial USARC are vacated by personnel relocating to DSCC, those individual facilities would be closed. In accordance with BRAC law, the Army must initiate all realignments not later than September 15, 2007, and complete all realignments not later than September 15, 2011.

The impact analyses included in this EA has been prepared based on the assumption that any implementation plan will include closure of the Fort Hayes Memorial USARC.

### 3.2.3 Army Disposal

Although Public Law 101-510 eliminates the need to decide whether to dispose of an installation, it does not eliminate the requirement for an environmental analysis of how the disposal is conducted for the designated installation. Consequently, the following alternatives have been considered concerning the potential disposal of Fort Hayes Memorial USARC real estate.

The Army's methodology to ensure environmentally sustainable redevelopment of BRAC disposal property identifies natural and man-made resources and conditions that must be used wisely or protected after ownership is transferred out of Federal control. Encumbrances are legal constraints imposed to protect environmental values, to meet requirements of federal law, to implement results from Army negotiations with regulatory agencies, or to address specific Army needs. Encumbrances can also arise as a result of past Army management of real property. For example, the presence of special hazardous materials such as asbestos-containing material, lead-based paint, radon, PCBs, and radiological material might require specific handling or management strategies. In most cases, these conditions will not materially and adversely affect redevelopment.

Some hazardous materials (e.g., petroleum products) are associated with the OMS. There is no evidence that any of these products have been spilled or released on the property that have not been previously controlled and cleaned up, and no underground storage tanks have historically been located on the property or are currently located on the property. All noted above ground storage tanks (typically 55-gallon or smaller containers) have secondary containment. An Asbestos, PCB, LBP, and Radon Survey was conducted on the Reserve Center and the OMS. The results of this survey were published in the 2005 Environmental Survey Report.

- This survey revealed that it is likely PCBs are present in light ballasts and transformers at the property.
- ACMs are known to exist in building materials.
- LBP was not found at either of the buildings. It is suspected that LBP is present in the guardhouse.

Encumbered disposal would allow the Army to ensure proper protections are provide to future occupants of the three facilities from potential health risks associated with PCBs, ACM, and LBP.

Some other types of conditions may be identified to an LRA as potentially limiting redevelopment but not classified as legal encumbrances because they are not within the ability of the Army to control or modify. Encumbrances could also be identified for the following items:

- Easements and rights of way,
- Use restrictions,
- Habitat and wetland protection,
- Historic building or archaeological site protection, and
- Water rights.

As noted in Section 2, one of the three buildings located at the Fort Hayes Memorial USARC is individually listed on the NRHP. Encumbered disposal would allow the Army to ensure proper protections are provided to that facility.

The Army must ensure that its disposal effort protects future users of the area from ACM, LBP, and PCB, as well as protects the Guard House as a cultural resource. The only method of ensuring appropriate protections would be for the Army to include these restrictions in an encumbered deed to the property.

If the Army would dispose of the Fort Hayes USACE without encumbrances or legal restrictions on future development, the Army would not be able to ensure continued environmental compliance. Consequently, although unencumbered disposal may be viable for the Army, it is not reasonable and has been eliminated from future detailed analysis.

Consequently, each of the potential disposal implementation alternatives includes the concept of encumbered disposal.

#### **3.2.3.1 No Action Alternative**

The No Action Alternative for this element of the planned action would assess the impacts of continued Army ownership and management of the Fort Hayes Memorial USARC; consequently, this alternative would violate existing laws and therefore would be unreasonable.

However, the No Action Alternative does provide for a comparison of conditions and related impacts for the current (pre-BRAC) condition and those that are expected to occur under the BRAC action implementation scenarios.

#### **3.2.3.2 Early Transfer Disposal Alternative**

Under this potential implementation alternative, the Army would take advantage of various property transfer and disposal methods that allow the reuse of the property to occur before environmental remedial action has been taken. One of these methods is to lease the property to a non-Army entity. For this, a finding of suitability to lease must be prepared. Another method is to transfer the property to another Federal agency and arrange for that other Federal agency to be responsible for all environmental response.

Another possibility is to defer the requirement to complete environmental cleanup and allow an early transfer of the property. Such deferral requires concurrence of environmental regulatory authorities and the governor of the affected state. The property must be suitable for the new owner's intended use, and that use must be consistent with protection of human health and the environment. Another method is to transfer the property to a new owner who agrees to perform all environmental remediation, waste management, and environmental compliance activities that are required for the property under Federal and state requirements (BRAC law §2905(e)).

As noted in subsection 2.2.3.3 above, some hazardous materials (e.g., petroleum products) are associated with the OMS. There is no evidence that any of these products have been spilled or released on the property that have not been previously controlled and cleaned up, and no underground storage tanks have historically been located on the property or are currently located on the property. All noted above ground storage tanks (typically 55-gallon or smaller containers) have secondary containment. An Asbestos, PCBs, LBP, and Radon Survey was conducted on the Reserve Center and the OMS.

Under this alternative, the Army would be able to dispose of the Fort Hayes USACR property in a relatively short period of time; thereby allowing for sooner redevelopment and use of the property.

### **3.2.3.3 Traditional Disposal Alternative**

Under the BRAC law, the Army is required to close all military installations recommended for closure by the BRAC Commission. The Army is also given broad authority to transfer the property to other government agencies or to dispose of it to non-government organizations. Under this alternative, the Army will transfer or dispose of property once environmental remediation and other environmental clearance is complete for individual parcels of the installation. The Army is required under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) to identify speedily uncontaminated property. Uncontaminated property is defined as property on which no hazardous substances and no petroleum products or their derivatives were known to have been released or disposed of. Such property will be available for transfer or expedited disposal. For property on which hazardous substances were stored for 1 year or more, known to have been released, or disposed of, other provisions apply. The Army must be able to certify that all required environmental action necessary to protect human health or the environment has been taken before the transfer or disposal. Transfer of property is allowed if a long-term environmental remedy is shown to be operating properly and successfully. Some environmental remedial actions may take a long time to be selected, approved, and implemented. There may be a prolonged period under this alternative during which parcels are not available for transfer or disposal.

Presently, it is expected that the Fort Hayes Memorial USARC property would be transferred to the new owner immediately following closure. Outside of the physical moving of equipment, office supplies, etc., no major pre-disposal

actions are expected to be needed as part of the closure process. Thereafter, the property would not require caretaker status.

However, prior to disposal should the Army find it necessary to place Fort Hayes in caretaker status for an indefinite period. Under the caretaker status, the Army will secure the property after the military mission has ended, to insure public safety and the security of remaining government property and environmental remediation actions. Under the BRAC law, the Army must initiate closure of installations within two years after the President submits the BRAC report to Congress. Because of environmental remediation and other requirements, there may be a period between the end of the major military presence and the transfer of the property to new owners. It is during this period that the Army must maintain the property in caretaker status. This condition should not be a permanent one because Army policy is to dispose of the closed installation.

#### **3.2.3.4 Caretaker Status Prior to Disposal Alternative**

Under the caretaker status alternative, the Army will secure the property after the military mission has ended, to insure public safety and the security of remaining government property and BRAC NEPA Guidelines environmental remediation actions. Under the BRAC law, the Army must initiate closure of installations within 2 years after the President submits the BRAC report to Congress. Because of environmental remediation and other requirements, there may be a period between the end of the major military presence and the transfer of the property to new owners. It is during this period that the Army must maintain the property in caretaker status. This condition should not be a permanent one because Army policy is to dispose of the closed installation.

#### **3.2.4 Community Reuse**

The Army has established a unique process for performing NEPA analysis and documentation of potential impacts associated with Army property disposal and reuse. The process is designed to comply with NEPA and related laws, protect and enhance the affected environment, and respond to local communities' needs and wishes in keeping with Army objectives for assisting in rapid economic revitalization.

The Army's approach is to identify the primary and secondary actions associated with BRAC; to describe the known or probable reuse alternatives in generic terms based on their reuse "intensity level," but with as much specificity as practicable; and to evaluate the direct, indirect, and cumulative effects of both disposal and reuse.

The primary action evaluated is disposal of the excess property made available by the legislatively mandated closure. This is an action for which the Army has responsibility, and both the authority and ability, to control. The secondary action is reuse development of the property after ownership is transferred, an action taken by others as a result of the Army's decision to dispose of the property.

Identification of recipients of the property being disposed of at the Fort Hayes Memorial USARC is governed by expressions of interest submitted by potential recipients in response to the Army's Declaration of Excess Property and Determination of Surplus

Property. As a result of the screening process (see Section 2.3.4), the installation would be available for transfer or conveyance to and subsequent reuse by the Fort Hayes Memorial USARC LRA or other entities.

The installation's 10.78 acres, including the three buildings present on the property are to be disposed of from DoD ownership, transferred to a new owner, and reused. The only reuse restriction involves the former guardhouse (and the surrounding area). Because this building is individually listed on the NRHP, its integrity as a Historic Property must be upheld by the subsequent owner(s) of the property. Any alterations planned for this building should be coordinated through the SHPO and a required programmatic agreement between the SHPO and the new property owner.

### **Intensity-Based Probable Reuse Scenarios**

The Fort Hayes Memorial USARC LRA has not yet completed their redevelopment plan for Fort Hayes. Consequently, based on guidance, reuse alternatives should consist of a range of generic reuses and associated activities based on the "most likely" or "probable" intensity level of land use, given the best available information relative to local ordinances and land use plans and trends. Based on recent discussions and meetings held by the LRA, the following alternatives have been developed to reflect the "most likely" reuse scenarios and the associated most "probable" intensity level of land and facility reuse.

NEPA analysis of reuse must be prepared and approved at a relatively early point in the overall property disposal process to allow various disposal and reuse actions to proceed in a timely manner. The local community must reach consensus on, or submit, an approved final reuse plan by the time the Department of the Army's Assistant Chief of Staff for Installation Management Building Department (DAIM-BD) needs to initiate the NEPA analysis. This NEPA analysis would support future disposition and reuse decisions for the property (decisions normally made at least by the time of installation closure). If the local community fails to do this, DAIM-BD must prepare the analysis using reasonable assumptions as to the likely reuse scenarios and their reasonable alternatives.

In response to this need, the Army has identified five scenarios (reuse alternatives) for relative reuse development intensity that could reasonably be expected to occur on property under consideration for disposal: low-, low/medium-, medium-, medium/high-, and high-intensity reuse. Present and future specific reuse plans might evolve and change; however, the reuse intensity scenarios can identify the range of potential activities and the environmental effects that could occur under all (or most) foreseeable alternatives. Information derived from this analysis is provided for consideration by future decision-makers and the public as required by NEPA.

Development of intensity parameters is based on several sources, including existing land use plans for various types of projects and planning jurisdictions, land use planning reference materials, and prior Army BRAC land use planning experience. Private sector redevelopment of property subject to BRAC action, on the other hand, seeks different objectives and uses somewhat different planning concepts in that it focuses on creation of jobs and capital investment costs, and it typically uses traditional community zoning categories (e.g., residential, industrial). Upon evaluation of various types of indicators in

light of their applicability to Army lands subject to BRAC action, the Army has selected four typical illustrative intensity parameters. These are residential density, employee density (general space), employee density (warehouse space), and floor area ratio. These intensity parameters aid in evaluation of environmental effects at various levels of redevelopment and are illustrated on Table 3-1. The following discusses these parameters.

- *Residential density.* This parameter identifies the number of dwelling units per acre. It indicates the number of people who might reside or work in an area.
- *Employee density (as measured in square feet per employee (general space)).* This parameter indicates the number of square feet available per employee in all types of facilities at an installation except family housing and warehouses or storage structures.
- *Employee density (as measured in square feet per employee (warehouse space)).* This parameter indicates the number of square feet available per employee engaged in warehouse or storage activities at an installation. Only built, fully enclosed and covered storage space is calculated; sheds or open storage areas are excluded from computation. In describing Army uses of facilities, estimates of the number of employees engaged in warehouse or storage operations are used to determine the portion of the installation workforce in this employee density category.
- *Floor area ratio.* This ratio reflects how much building development occurs at a site or across an area. For example, a 3-story building having a 7,500-square foot footprint on a 4-acre site would represent an floor area ratio of 0.13 (22,500 square feet of floor space over 4 acres {174,240 square feet}).

Employee density, FAR, and development ratio considerations shown in Table 3-1 are appropriate to describe intensity levels for reuse planning at Fort Hayes Memorial USARC. The intensity parameters shown in Table 3-1 reflect generalized values or ranges appropriate to describe the variety of installations subject to Army management, as well as the variety of redevelopment situations. The intensity parameters should be considered together in evaluating the intensity of reuse of a site so as to provide full context. Use of any single parameter in isolation might unduly emphasize certain aspects of a site or preclude broader consideration. As applied to any particular parcel or area, or the whole of the installation, the values given might require some adjustment to account for the context in which an activity is located. For example, the size of a redevelopment project might result in distorting effects on the generalized values for the parameters provided.

Although presented in the generic table, it is highly unlikely that the Fort Hayes Memorial USARC would be converted into Residential use, given the industrial location of the site. Consequently, consideration of the residential intensity in the remaining analysis is considered to be unreasonable and has been eliminated from detailed analysis in the remainder of the document.

<b>Table 3-1 Land Use Intensity Parameters</b>				
<b>Intensity Level</b>	<b>Residential Intensity (Dwelling units per acre)</b>	<b>Employee Density (Square Feet per Employee (General Space))</b>	<b>Employee Density (Square Feet per Employee (Warehouse Space))</b>	<b>Floor Area Ratio</b>
Low	Less than 2	Greater than 800	Greater than 15,000	Less than 0.05
Medium-Low	2 to 6	601 to 800	8,001 to 15,000	0.05 to 0.10
Medium	6 to 12	401 to 600	4,000 to 8,000	0.10 to 0.30
Medium-high	12 to 20	200 to 400	1,000 to 4,000	0.30 to 0.70
High	Greater than 20	Less than 200	Less than 1,000	Great then 0.70
<i>Source: BRAC NEPA Guidelines</i>				

The levels of intensity presented on table 3.1 indicate that current development intensity on the Fort Hayes Memorial USARC would be equal to the medium intensity reuse level. At this point, it is believed that any future reuse at the site would continue to use the existing facilities on the site, although those buildings might be renovated and converted to different uses. As a result, it would be unreasonable to assume that future development at the site would include either Low Intensity reuse or Medium-Low intensity reuse. Therefore, both Low Intensity and Medium-Low Intensity redevelopment alternatives are eliminated from detailed consideration in the EA.

Development at the High Intensity Reuse level would require a floor area ratio between 0.70 and 1.00. It is not possible to achieve this floor area ratio and remain compliant with existing zoning for the site, which limits development height to five stories, and still ensure zoning compliance by including surface parking and access roadway for on site personnel. As it is not reasonable for the Army to assume that a zoning variance would be provided, the consideration of high density development on the site is not reasonable, and has been eliminate for further consideration in this EA.

### **3.3 DESCRIPTION OF ALTERNATIVES**

Based on the Army realignment, closure, and disposal followed by community reuse discussion presented above, the following alternative combinations have been carried forward for detailed analysis in this EA.

#### **3.3.1 Alternative 1, No Action Alternative**

Inclusion of the no action alternative is prescribed by the Council on Environmental Quality regulations and serves as a benchmark against which federal actions can be evaluated. No action assumes that the Army would continue its mission at Fort Hayes as it existed in the fall of 2005. Because the BRAC Commission's recommendations now have the force of law, continuation of the Fort Hayes mission is not possible. Under BRAC Law, the Army must initiate closure of installations within two years after

the President submits the BRAC report to Congress. Although the no action alternative is not possible to implement without further Congressional action, it serves as a baseline alternative against which other alternatives can be evaluated.

### **3.3.2 Impacts of Army Realignment, Closure, and Disposal**

The Army decision maker will make a decision in the FNSI as to which of the following realignment, closure and disposal alternatives the government should choose.

#### **3.3.2.1 Alternative 2, Early Transfer Disposal**

##### **Army Phased Realignment**

As described in Section 3.2.1.4, this alternative would involve the relocation of the 42 permanent party military personnel and 790 part-time Reserve personnel, and related missions and equipment, from the Fort Hayes Memorial USARC to the DSCC. The realignment would occur on a phased schedule. This schedule would be dependent upon the availability of facilities to support the mission requirements at DSCC. The implementation schedule for this Proposed Action must be completed within the 6-year time limitation as established in the BRAC law.

##### **Army Closure Following Realignment**

Following the completion of the phased realignment of personnel to DSCC, the Fort Hayes Memorial USARC would be closed. Individual facilities at the USARC would be closed as they become vacated by personnel relocating to DSCC. In accordance with BRAC law, the Army must complete all realignments by September 15, 2011.

##### **Army Early Transfer Encumbered Disposal**

Disposal of excess property is the Army's primary action associated with BRAC. To ensure protection of the existing Fort Hayes properties and the long-term health of personnel using the Fort Hayes facilities, this disposal would be an encumbered disposal that includes appropriate environmental protection features. These disposal restrictions would include: a reuse restriction, or encumbrance, regarding the former guardhouse and surrounding area that is individually listed on the NRHP; and restrictions associated with ACM, LPB, and PCS that are present at the facility.

To uphold its integrity as a historic property, proposed alterations to the guardhouse during reuse must be coordinated through the SHPO. A programmatic agreement between the SHPO and developer will be required regarding operation and maintenance of the building and the associated surrounding area.

Additional encumbrances may also be imposed based on the results of the Environmental Condition of Property (ECOP) Report and the likely presence of environmental contaminants on the site.

Under the early transfer approach, the Army will take advantage of various property transfer and disposal methods that allow the reuse of the property to occur before environmental remedial action is completed. One of these methods is to lease the property to a non-Army entity. For this, a finding of

suitability to lease (FOSL) is prepared. Another method is to transfer the property to another federal agency and arrange for that other federal agency to be responsible for all environmental response.

Another possibility is to defer the requirement to complete environmental cleanup and allow an early transfer of the property. Such deferral requires concurrence of environmental authorities and the governor of the affected state. The property must be suitable for the new owner's intended use, and that use must be consistent with protection of human health and the environment. Another method is to transfer the property to a new owner who agrees to perform all environmental remediation, waste management, and environmental compliance activities that are required for the property under Federal and state requirements (BRAC law §2905(e)).

### **3.3.2.2 Alternative 3, Traditional Disposal**

#### **Army Phased Realignment and Closure**

Under this alternative, the Army would realign personnel and close the Fort Hayes Memorial USARC in the same methods discussed under Alternative 2. Personnel would be realigned using a Phased approach, and the facility would be closed as personnel are realigned.

#### **Army Traditional Encumbered Disposal**

Under this alternative, the property at the Fort Hayes Memorial USARC would be disposed of with encumbrances to protect the historic Guard House, and to protect future users from potential LBP, ACM, and PCB issues. This element of this alternative would be identical to Alternative 2 above.

Under the BRAC law, the Army is required to close all military installations recommended for closure by the BRAC Commission. The Army is also given broad authority to transfer the property to other government agencies or to dispose of it to non-government organizations. Under this alternative, the Army will transfer or dispose of property once environmental remediation and other environmental clearance is complete for individual parcels of the installation.

The Army is required under the CERCLA to identify speedily uncontaminated property. Uncontaminated property is as property on which no hazardous substances and no petroleum products (or their derivatives) were released or disposed of. Such property will be available for transfer or disposal quickly. For property on which hazardous substances were stored for 1 year or more, released, or disposed of, other provisions apply. The Army must be able to certify that all required environmental action necessary to protect human health or the environment is complete before the transfer or disposal. Transfer of property may occur if a long-term environmental remedy is operating properly and successfully. Some environmental remedial actions may take a long time to be selected, approved, and implemented. Consequently, there may be a prolonged period during which the parcel is not available for transfer or disposal.

### **3.3.2.3 Alternative 4, Caretaker Status Prior to Disposal**

#### **Army Phased Realignment and Closure**

Under this alternative, the Army would realign personnel and close the Fort Hayes Memorial USARC in the same methods discussed under Alternative 2. Personnel would be realigned using a Phased approach, and the facility would be closed as personnel are realigned.

#### **Army Caretaker Status Prior to Encumbered Disposal**

Under this alternative, the property at the Fort Hayes Memorial USARC would be disposed of with encumbrances to protect the historic Guard House, and to protect future users from potential LBP, ACM, and PCB issues. This element of this alternative would be identical to Alternative 2 above.

Under the caretaker status alternative, the Army will secure the property after the military mission has ended, to insure public safety and the security of remaining government property and BRAC NEPA Guidelines environmental remediation actions. Under the BRAC law, the Army must initiate closure of installations within 2 years after the President submits the BRAC report to Congress. Because of environmental remediation and other requirements, there may be a period between the end of the major military presence and the transfer of the property to new owners. It is during this period that the Army must maintain the property in caretaker status. This condition should not be a permanent one because Army policy is to dispose of the closed installation.

### **3.3.3 Potential Impacts of Community Reuse**

The Army decision maker does not have direct control over the following likely development intensities the Community will use for the Fort Hayes Memorial USARC. Therefore, the Army has evaluated the potential impacts associated with each of these intensities but will not reach a decision concerning which of these alternatives the community will choose to implement. Additionally, the Army expresses no preference with respect to reuse scenarios because decisions implementing reuse will be made by other entities.

#### **3.3.3.1 Scenario A, Medium Intensity Reuse**

Reuse development of excess property is the Army's secondary action associated with BRAC. As currently planned the Fort Hayes Memorial USARC property would be transferred to a new owner immediately following closure. This subsequent reuse could take several forms and reflect various uses and use intensities.

Employment under medium intensity reuse could range between 78-352 employees for general space use, and between 6-35 employees for warehousing use depending upon the respective floor area ratios. A higher floor area ratio would generally result in a greater number of potential employees. The higher level of potential employment for general space use reflects more intense uses, such as office space and labor-intensive industries. General space employment is based on 401-600 SF per

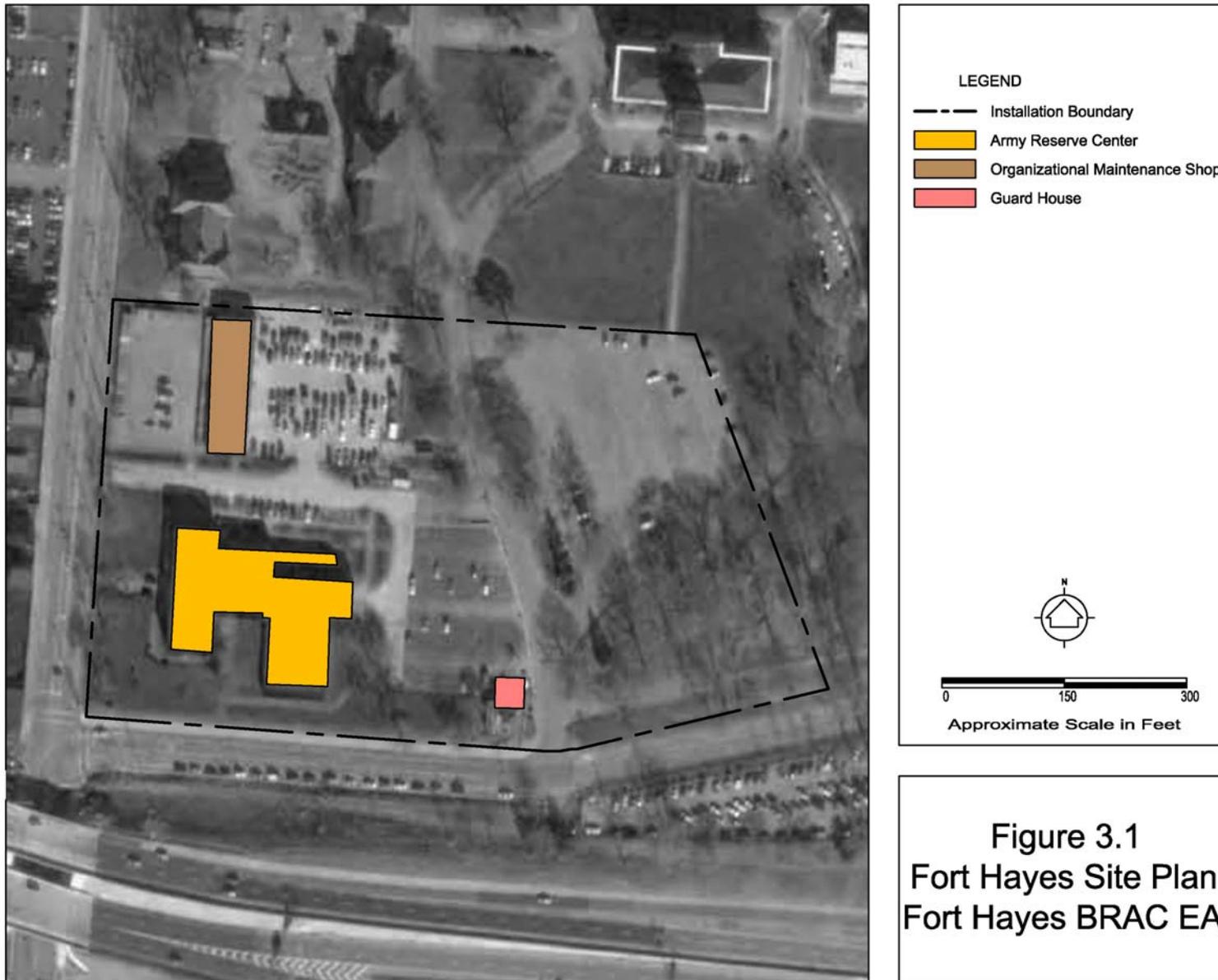
employee, and warehousing employment is based on 4,000-8,000 SF per employee under the medium intensity reuse scenario.

The existing baseline conditions reflect an overall medium intensity development of the Fort Hayes Memorial USARC site. This current intensity level reflects a medium/medium-low intensity floor area ratio of 0.10 (47,037 SF/ 469,577 SF), but a high employee intensity with less than 200 SF of floor space per employee (47,037 SF/253 Full Time Equivalent (FTE) employees).

### **3.3.3.2 Scenario B, Medium-High Intensity Reuse**

Under the medium-high intensity reuse scenario the total potential SF of building area on the Fort Hayes Memorial USARC property could range between 141,000-329,000 SF based on a floor area ratio ranging between 0.30-0.70. This potential amount of building area would reflect substantial new construction on the site.

Employment under medium-high intensity reuse could range between 352-1,645 employees for general space use, and between 35-330 employees for warehousing use depending upon the respective floor area ratios. A higher floor area ratio would result in a greater number of potential employees. General space employment under the medium-high intensity scenario reflects a range of 401–600 SF per employee, while warehousing employment is based on 1,000-4,000 SF per employee. The higher level of potential employment for general space use reflects more intense uses, such as office space and labor-intensive industries.



# SECTION 4

## AFFECTED ENVIRONMENT AND CONSEQUENCES

### 4.1 INTRODUCTION

The following discussion describes the affected environment at Fort Hayes Memorial USARC. Following a description of the affected environment, the discussion addresses the potential environmental consequences or impacts of each of the potential implementation alternatives evaluated. The discussion focuses on aspects of the environment that could be impacted by the proposed construction projects, maintenance and operation of the proposed facilities and support elements, and implementation of new activities associated with the presence of the new activities at Fort Hayes.

The discussion is structured using the following general environmental resource categories:

- Aesthetics and Visual Resources;
- Air Quality;
- Biological Resources;
- Cultural Resources;
- Geology;
- Hazardous and Toxic Substances;
- Land Use;
- Noise;
- Socioeconomics;
- Soils;
- Transportation;
- Utilities; and
- Water Resources.

As discussed in Section 3, the alternatives being evaluated for environmental consequences in this EA include the following:

- Alternative 1, No Action Alternative;
- Alternative 2, Early Transfer Disposal;
- Alternative 3, Traditional Disposal; and
- Alternative 4, Caretaker Status Prior to Disposal.

The impacts discussion also includes a discussion of the potential impacts of community reuse of the Fort Hayes Memorial USARC scenarios, although the Army does not have control over this future reuse. Potential reuse scenarios considered and discussed included the following:

- Scenario A, Medium Intensity Reuse;
- Scenario B, Medium-High Intensity Reuse; and

#### 4.1.1 Initial Resource Category Screening

Based on an initial screening of potential affects of implementing each of the viable implementation alternatives, the following resource categories have been eliminated from detailed consideration in the analysis. Elimination of these resources was based on the exceptionally limited potential for either beneficial or adverse impacts associated with the identified alternatives.

- **Geology.** The analysis of geology and soils considered the following:
  - Topographic features;
  - Geologic features;
  - Caves;
  - Seismicity; and
  - Prime Farmland.

Implementation of the Proposed Action would not result in any change to these geological elements; consequently, detailed consideration of potential geological resource impacts is not included in this analysis. The detailed analysis of potential effects on soils and the potential for surface erosion because of construction and ongoing mission activities is included in the analysis.

- **Utilities.** The initial screening with respect to utilities considered the following:
  - The current buildings have been supplied potable water and wastewater treatment by the City of Columbus since their construction in 1965.
  - Columbus Gas of Ohio and American Electric Power supply natural gas and electric to the property.
  - Potential development would be consistent with other similar development in the area, thereby not substantially changing the utilities demand.

Consequently, detailed consideration of potential utility impacts has not been included in this analysis.

## 4.1.2 Definition of Key Terms

### 4.1.2.1 Environmental Baseline

The existing environmental baseline conditions have been established based on conditions at the installation as of August 2006.

### 4.1.2.2 Impact

An environmental consequence or impact (hereinafter referred to in this document as an impact) is defined as a noticeable change in a resource from the existing environmental baseline conditions caused by or resulting from the proposed action. The terms “impact” and “effect” are synonymous as used in this EA. Impacts may be determined to be beneficial or adverse and may apply to the full range of natural, aesthetic, cultural, and economic resources of the installation and its surrounding environment.

### 4.1.2.3 Direct Versus Indirect Impacts

Where applicable, analysis of impacts associated with each course of action has been further divided into direct and indirect impacts. Definitions and examples of direct and indirect impacts as used in this document are as follows:

- **Direct Impacts.** A direct impact results from the proposed action and occurs at the same time and place. Both short-term and long-term direct impacts can be applicable.
- **Indirect Impacts.** An indirect impact results from the proposed action and occurs later in time or at a different location, but is still reasonably foreseeable.
- **Application of Direct Versus Indirect Impacts.** For direct impacts to occur, a resource must be present in a particular area. For example, if highly erodible soils were disturbed due to construction, there would be a direct impact to soils from erosion at the development site. Sediment-laden runoff might indirectly affect surface water quality in adjacent areas downstream from the development site.

### 4.1.2.4 Impact Characterization

The relative magnitude of an impact is characterized. Adverse or beneficial impacts that are significant are the highest level of impacts. Conversely, negligible adverse or beneficial impacts are the lowest level of impacts. In this document, five descriptors are used to characterize the level of impacts. In order of degree of impact, the descriptors are as follows:

- No Impact,
- Negligible Impact,
- Minor Impact,
- Moderate Impact, and

- Significant Impact.

The following figure graphically represents this hierarchy of impacts.



#### 4.1.2.5 Significance

The term “significant,” as defined in Section 1508.27 of the Regulations for Implementing NEPA (40 CFR 1500), requires consideration of both the context and intensity of the impact evaluated. Significance can vary in relation to the context of the proposed action. Thus, the significance of an action must be evaluated in several contexts that vary with the setting of the proposed action. For example, context may include consideration of effects on a national, regional, and/or local basis depending upon the action proposed. Both short-term and long-term effects may be relevant.

In accordance with the CEQ implementing guidance, impacts are also evaluated in terms of their intensity or severity. Factors contributing to the evaluation of the intensity of an impact include, but are not limited to, the following:

- Because an impact may be both beneficial and adverse, a significant impact may exist even if, on balance, the impact is considered beneficial.
- The degree to which the action affects public health or safety.
- Unique characteristics of the geographic area where the action is proposed such as proximity to parklands, historic or cultural resources, wetlands, prime farmlands, wild and scenic rivers or ecologically critical areas, and rare flora and fauna species.
- The degree to which the effects on the quality of the human environment are likely to be controversial.
- The degree to which the effects of the action on the quality of the human environment are likely to be highly uncertain or involve unique or unknown risks.
- The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

- Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.
- The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed on or eligible for listing on the NRHP or may cause loss or destruction of significant scientific, cultural, or historical resources.
- The degree to which the action may adversely affect any endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.
- Whether the action threatens a violation of Federal, state, or local law or requirements imposed for the protection of the environment (i.e., Clean Water Act, Endangered Species Act, etc.).

As noted in the following analysis, none of the potential impacts identified in this EA are significant.

## **4.2 AESTHETICS AND VISUAL RESOURCES**

### **4.2.1 Affected Environment**

Fort Hayes encompasses approximately 10.8 acres of land and is located within the City of Columbus. The site is situated near I-670, Dolly Madison Bakery, and the Columbus Public Schools Facility.

The title to the land was purchased by the government in 1802. Fort Hayes was created in 1861. When Captain T.C. Bradford became post commander in 1864, he constructed 12 Italian (Tuscan) revival buildings. Around 1901, the Columbus Barracks (named in 1875) enlarged with more buildings and acreage. During the 1970s, the buildings were placed on the NRHP, and a portion of the property was sold to Columbus Public Schools. Currently, the USARC has three buildings.

- Building 118, the former guardhouse, retains the Italian Style Renaissance style, remains on the NHRP, and has been unoccupied since 2002.
- Building 300, the USARC, is a modern training facility built in 1965. It is a multi-story building with a two-story drill hall connected by a corridor.
- The OMS, constructed in 1965, is a 1 story building used for vehicle maintenance and office space. Both the USARC and the OMS building are concrete foundations and concrete block walls covered by brick veneer.

## 4.2.2 Consequences

### 4.2.2.1 Alternative 1, No Action Alternative

- **Direct Impacts.** Under this alternative, current operations and personnel would not be reassigned to DSCC. No impacts on the visual appearance of the operations would occur as maintenance activities are expected to continue for the current facilities.
- **Indirect Impacts.** There would be no indirect impacts on aesthetics and visual resources at Fort Hayes.

### 4.2.2.2 Impacts of Army Realignment, Closure, and Disposal

#### 4.2.2.2.1 Alternative 2, Early Transfer Disposal

- **Direct Impacts.** Under this alternative, there would be a quicker disposal process resulting in reuse and redevelopment on a shorter timeframe. This disposal process would result in no change in baseline conditions with respect to aesthetics and visual resources.

Under the early transfer disposal approach, disposal would occur prior to any environmental remediation, should a requirement for any environmental remediation be identified. Presently, there is no evidence of any hazardous material spills or releases on the property that have not been previously controlled or cleaned. However, should the redevelopment of the site require environmental clean up, there would be short-term negligible adverse impacts to aesthetics and visual resources from equipment and activities.

- **Indirect Impacts.** There are no anticipated changes to baseline conditions under this alternative.

Should environmental remediation activities be required at the site (although none have been identified thus far), the construction and remediation activities could result in short-term adverse impacts on the visual environment.

#### 4.2.2.2.2 Alternative 3, Traditional Disposal

- **Direct Impacts.** The impacts under this alternative would be similar to those in Alternative 2; however, the clean up (if required) would occur prior to disposal.
- **Indirect Impacts.** The impacts under this alternative would be similar to those in Alternative 2; however, the clean up (if required) would occur prior to disposal.

#### 4.2.2.2.3 Alternative 4, Caretaker Status Prior to Disposal

- **Direct Impacts.** There would be short-term negligible impacts on aesthetics should the Army find it necessary to place Fort Hayes in caretaker status for environmental remediation or clean up for an indefinite period. If remediation (which is not currently anticipated) should be required, there would be visual impacts from activities and equipment.

- **Indirect Impacts.** There are negligible indirect impacts under this alternative. The caretaker would insure public safety and security of the remaining government property. Long-term caretaker status creates potential for a decrease in the frequency of mowing, weeding, and visual maintenance that may have a short-term impact on aesthetic resources.

#### 4.2.2.3 Potential Impacts of Community Reuse

##### 4.2.2.3.1 Scenario A, Medium Intensity Reuse

- **Direct Impacts.** There would be short-term and long-term impacts under this scenario. Currently, the Army uses the property at a medium intensity level, and it is most likely that the LRA or any future user of the property would maintain that level. However, there is the potential to increase the buildings to a 141,000 SF or FAR of 0.3 and remain at a medium intensity level. To accommodate the higher end of the medium intensity level, an additional 94,000 SF of construction could occur on the former Fort Hayes site. There would be visual impacts from construction equipment and activities. However, the impacts would be short-term and negligible.

There is approximately 144,000 SF of current green space. An increase in building foot print of 94,000 SF would reduce vegetation by approximately 65 percent. The reduction of green space would result in a long-term impact to the visual character of the installation's landscape. Proper design of the new structure should minimize effects and ensure that the exterior of the buildings are visually appealing. Consequently, the impacts would be minor.

##### 4.2.2.3.2 Scenario B, Medium-High Intensity Reuse

- **Direct Impacts.** Under the medium-high intensity reuse, there would be negligible to minor adverse impacts. The range for medium high can be 141,000 SF to 329,000 SF. The impacts for the low end of the medium-high intensity range would be similar to those in scenario A.

Substantial construction would be needed to accommodate the reuse at the high-end of the range. There would be 282,000 SF of either increased vertical height or building footprint. There would be more visual impacts from increased amounts of construction equipment and activities. To accommodate all 282,000 SF as one-story construction, all vegetation would be removed. Vertical additions would need detailed planning. Building design would be important to ensure the new construction conforms to the aesthetics of the surrounding area and existing buildings to minimize the impact.

- **Indirect Impacts.** The indirect impacts under this alternative would be similar to Scenario A; however, their magnitude would be slightly larger.

## 4.3 AIR QUALITY

### 4.3.1 Affected Environment

#### 4.3.1.1 Ambient Air Quality Conditions

The status of the air quality in a given area is determined by the concentrations of various pollutants in the atmosphere. The Federal Clean Air Act (42 US Code (USC.) §§ 7401-7671q) required the US Environmental Protection Agency (USEPA) to establish a series of National Ambient Air Quality Standards (NAAQS) for air quality throughout the US, along with several regulatory programs and provisions applicable to various classes of emissions sources, to ensure that the standards are met. Ambient air is defined as the outside air to which the general public is exposed. NAAQS represent maximum levels of pollution in the ambient air that are considered safe, with an adequate margin of safety, for protecting public health and welfare.

Currently, NAAQS exist for the following air pollutants, collectively referred to as “criteria pollutants” that have been identified by USEPA as being of concern to protect human health and welfare from any adverse effects of air pollution:

- Ozone (O<sub>3</sub>);
- Carbon monoxide (CO);
- Nitrogen dioxide (NO<sub>2</sub>);
- Sulfur dioxide (SO<sub>2</sub>);

Particulate matter, including particles sized 10 microns or less (PM<sub>10</sub>), also called respirable particulates or suspended particulates; and fine particulate matter equal to or less than 2.5 microns in size (PM<sub>2.5</sub>); and Lead (Pb).

Volatile Organic Compounds (VOCs) are also regulated as criteria pollutants. There are no ambient standards for VOCs, but, along with nitrogen oxide (NO<sub>x</sub>), they are considered as precursor emissions largely responsible for the formation of ozone in the atmosphere.

Individual states can adopt the NAAQS or establish state ambient air quality standards, which must be equally or more stringent than the NAAQS. The Ohio EPA has adopted the NAAQS.

Table 4.1 lists the primary and secondary NAAQS for the above listed criteria pollutants, along with the averaging periods to which each standard applies. The primary NAAQS are intended to protect public health, while the secondary NAAQS are intended to protect the environment (e.g., crops, wildlife, buildings). Areas where ambient concentrations of a given pollutant are below the applicable ambient standards are designated as being in “attainment” for that pollutant. An area that does not meet the NAAQS for a given pollutant is classified as a “non-attainment” area for the pollutant. Non-attainment areas are under strict regulatory restriction in an effort to lower pollutant concentrations to regulatory standards. For three of the criteria pollutants (O<sub>3</sub>, CO, and PM<sub>10</sub>), non-attainment areas are classified according to severity.

<b>Table 4.1 National Ambient Air Quality Standards (NAAQS)</b>			
<b>Criteria Air Pollutant</b>	<b>Averaging Time</b>	<b>Primary Standard</b>	<b>Secondary Standard</b>
Carbon Monoxide (CO)	1-hour <sup>a</sup>	35 ppm <sup>b</sup> (40 mg/m <sup>3c</sup> )	None
	8-hour <sup>a</sup>	9 ppm (10 mg/m <sup>3</sup> )	None
Lead (Pb)	Quarterly Average	1.5 ug/m <sup>3d</sup>	Same as Primary Standard
Nitrogen Dioxide (NO <sub>2</sub> )	Annual Arithmetic Mean	0.053 ppm (100 ug/m <sup>3</sup> )	Same as Primary Standard
Ozone (O <sub>3</sub> )	1-hour average <sup>h</sup>	0.12 ppm (235 ug/m <sup>3</sup> )	Same as Primary Standard
	8-hour average <sup>e</sup>	0.08 ppm (157 ug/m <sup>3</sup> )	Same as Primary Standard
Particulate Matter (PM <sup>10</sup> )	24-hour average <sup>a</sup>	150 ug/m <sup>3</sup>	Same as Primary Standard
Particulate Matter (PM <sup>2.5</sup> )	Annual Arithmetic Mean <sup>f</sup>	15 ug/m <sup>3</sup>	Same as Primary Standard
	24-hour average <sup>g</sup>	35 ug/m <sup>3</sup>	Same as Primary Standard
Sulfur Dioxide (SO <sub>2</sub> )	24-hour <sup>a</sup>	0.14 ppm (365 ug/m <sup>3</sup> )	None
	Annual Arithmetic Mean	0.03 ppm (80 ug/m <sup>3</sup> )	None
	3-hour Maximum <sup>a</sup>	None	0.5 ppm (1300 ug/m <sup>3</sup> )
<p>Source: Ohio Environmental Protection Agency, 2006</p> <p>a Not to be exceeded more than once a year</p> <p>b ppm = parts per million</p> <p>c mg/m<sup>3</sup> = milligrams per cubic meter</p> <p>d ug/m<sup>3</sup> = micrograms per cubic meter</p> <p>e Established for a 3-year average of the fourth highest daily maximum concentration</p> <p>f Established for a 3-year average</p> <p>g Established for a 3-year average of the 98th percentile of data</p> <p>h (a) The standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is &lt;= 1.</p> <p>(b) The 1-hour NAAQS no longer applies to an area 1 year after the effective date of the designation of that area for the 8-hour ozone NAAQS. The effective designation date for most areas is June 15, 2004 (40 CFR 50.9; 69 FR 23996).</p>			

Compliance with the Clean Air Act NAAQS provisions is delegated primarily to the individual states. The USEPA requires each state to prepare a State Implementation Plan (SIP) to ensure these goals are met. A SIP is a compilation of goals, strategies, source emission limitations and control requirements, schedules, and enforcement actions that would lead the state to compliance with

all NAAQS. Any changes to the compliance schedule or plan must be approved by USEPA and officially incorporated into the SIP. Areas not in compliance with a standard can be declared “non-attainment areas” by the USEPA or the appropriate state or local agency. To reach attainment, NAAQS for certain pollutants and short-term averaging periods (i.e., for 1-, 3-, 8-, and/or 24-hour periods) generally may not be exceeded more than once per year; standards for annual averaging periods are generally not to be exceeded.

#### **4.3.1.2 Air Pollutant Emissions at Installation**

Fort Hayes Memorial USARC is located within in an Air Quality Region currently designated as non-attainment for PM<sub>2.5</sub> and the 8-hour O<sub>3</sub> standard for ambient air quality. Fort Hayes emission sources include stationary, mobile, and fugitive categorizations. Stationary sources include such operations as boilers, fuel dispensing operations, and a maintenance shop. Mobile sources would include both private and government owned vehicles and generators. Fugitive sources would include dust generated from construction activities and roadway traffic.

#### **4.3.1.3 Regional Air Pollutant Emissions Summary**

Air quality is determined within regional boundaries and by pollutant concentration guidelines as defined and enforced by the USEPA and state agencies as authorized under the Clean Air Act. Air quality at Fort Hayes Memorial USARC is regulated by the Ohio EPA and the “Potential to Emit” for the installation was well under the Title V threshold levels. Fort Hayes Memorial USARC is within the Columbus, Ohio region currently classified as non-attainment areas for PM<sub>2.5</sub> and O<sub>3</sub>. While the installation falls under the regional non-attainment status for PM<sub>2.5</sub>, the three PM<sub>2.5</sub> monitoring stations located in Franklin County are below the allowable EPA standard (EPA, 2006). The 1990 amendments to the Federal Clean Air Act, Section 176 required the EPA to promulgate rules to ensure that Federal actions that produce emissions of any criteria air pollutants for which an area is not in attainment with standards conform to the appropriate SIP. These resulting rules, known together as the General Conformity Rule (40 Code of Federal Regulations §§ 51.850-860 and 40 Code of Federal Regulations §§ 93.150-160), require any Federal agency responsible for an action in a non-attainment area to determine that the action is either exempt from the General Conformity Rule requirements or positively determine that the action conforms to the provisions and objectives of the applicable SIP. Any mitigation that is deemed necessary as a result of the conclusions reached in the conformity analysis would be implemented and would be integrated into the SIP.

The General Conformity Rule requires an assessment of the potential magnitude of potential total direct and indirect emissions of criteria pollutants, including precursors, associated with a proposed Federal action when determining conformity of the proposed action. The rule does not apply to certain “exempt” actions or to actions where the total direct and indirect emissions of criteria pollutants are at or below specified threshold levels known as de minimis levels. In addition, ongoing activities currently being conducted are exempt from the rule

as long as there is no net increase in emissions above the specified de minimis levels. If the proposed emissions exceed the de minimis levels, a formal air conformity analysis is necessary. If the de minimis levels are not exceeded, and if the predicted emissions do not exceed 10% of a non-attainment area's total emission budget for a given pollutant, a record of non-applicability must be prepared.

If an action is not exempt, the Federal agency must demonstrate that the total of direct and indirect emissions from the proposed action could be presumed to conform to the SIP provisions as long as the action would not:

- Cause or contribute to any new violation of any standard in any area;
- Interfere with provisions in the applicable SIP for maintenance of any standard;
- Increase the frequency or severity of any existing violation of any standard in any area; or
- Delay timely attainment of any standard or any required interim emission reductions or other milestones in any area including, where applicable, emission levels specified in applicable SIP for purposes of demonstrating reasonable further progress, demonstrating attainment, or a maintenance plan.

For purposes of determining a project's emissions, "direct emissions" are those directly associated with project activities at the time and location of the project. For the Proposed Action, direct emissions include those from routine operational activities and operation of permitted emission sources, as well as actual construction activities, construction vehicles and equipment, and any ancillary emissions sources. "Indirect emissions" are those that may be related to the project, but occur in a different place or at a different time; i.e., continue after project completion.

A General Conformity Analysis, IAW 40CFR Part 93 Subpart B, is required prior to this project being initiated. Any mitigation that is deemed necessary as a result of the conclusions reached in the conformity analysis would be integrated into the SIP. Should the local community establish a use with a greater level of intensity than current utilization of the facility, then the reuse authority would be required to complete the General Conformity Analysis and submit the appropriate documentation for this analysis.

## **4.3.2 Consequences**

### **4.3.2.1 Alternative 1, No Action Alternative**

- **Direct Impacts.** Under the No Action Alternative, no new construction and renovation projects would be accomplished. The Fort Hayes Memorial USARC would not close and personnel would not be realigned to DSCC. Current trends in local air quality would remain relatively unchanged.

- **Indirect Impacts.** No indirect impacts are anticipated for this area under this alternative.

#### 4.3.2.2 Impacts of Army Realignment, Closure, and Disposal

For purposes of this analysis, air emission impacts were based on the amount of renovation/construction activity performed and personnel transfers, along with the time required to conduct these actions.

##### 4.3.2.2.1 Alternative 2, Early Transfer Disposal

- **Direct Impacts.** Under this alternative, there would be a quicker disposal process resulting in reuse and redevelopment on a shorter timeframe. This disposal process would result in no change in baseline conditions with respect to air quality.

Under the early transfer disposal approach, disposal would occur prior to any environmental remediation, should a requirement for any environmental remediation be identified. Remediation projects could potentially generate particulate emissions and construction equipment conducting the remediation, would generate CO, NO<sub>x</sub>, and VOCs. The amount of these emissions would be dependent upon the extent of the remediation project and the amount of time necessary to complete the remediation. Additionally, the incorporation of Best Management Practices (BMPs) related to dust suppression would reduce emissions from such activities. At this time, no known remediation activities are warranted at the site and therefore, no air quality impacts are anticipated.

- **Indirect Impacts.** There are no anticipated changes to baseline conditions under this alternative.

Should environmental remediation activities be required at the site (although none have been identified thus far), the construction and remediation activities could result in short-term adverse impacts on the air quality in the form of dust that might blow off the Fort Hayes site.

##### 4.3.2.2.2 Alternative 3, Traditional Disposal

- **Direct Impacts.** The impacts under this alternative would be similar to those in Alternative 2; however, the clean up would occur prior to disposal.
- **Indirect Impacts.** The impacts under this alternative would be similar to those in Alternative 2; however, the clean up would occur prior to disposal.

##### 4.3.2.2.3 Alternative 4, Caretaker Status Prior to Disposal

- **Direct Impacts.** Impacts from this alternative would be similar to those identified in Alternative 2 as the activities would be similar. During the implementation of the caretaker status that might be a short-term decrease in air emissions associated with the heating and cooling of the existing buildings. While undergoing the caretaker status the existing buildings would not require heating

and cooling for human comfort; consequently emissions associated with these activities would be reduced.

- **Indirect Impacts.** Impacts from this alternative would be similar to those identified in Alternative 2 as the activities would be similar.

#### 4.3.2.3 Potential Impacts of Community Reuse

##### 4.3.2.3.1 Scenario A, Medium Intensity Reuse

- **Direct Impacts.** Under this scenario, renovation of building facilities is not anticipated or would be of such a small scale, that construction related air emissions would be negligible. The potential for increased personnel, emissions from increased POV and Military Equipment use would be negligible.

Table 4.2 highlights the anticipated increase in air emissions associated with POVs under this scenario.

<b>Table 4.2 Estimated Air Emission Impacts From Employee POV Use at Fort Hayes Memorial USARC – Scenario A</b>			
<b>Activity</b>	<b>CO</b>	<b>VOC</b>	<b>NOX</b>
Air Emissions – POV Increased Usage (TPY)	0.91	0.1	0.13
<i>Source: AP 42 Mobile Source Emissions (Appendix J - Table 2.01)</i>			
<i>Notes: Assumes additional 100 POVs utilized 200 days per year.</i>			
<i>Measured in Tons Per Year (TPY)</i>			

- **Indirect Impacts.** Under this scenario, no indirect impacts are anticipated.

##### 4.3.2.3.2 Scenario B, Medium-High Intensity Reuse

- **Direct Impacts.** Under this scenario, renovation of building facilities would generate a short-term negligible adverse impact for criteria pollutants. Based on EPA AP-42 emission factor guidelines, emissions from renovation projects were estimated. Renovation and construction activities could require air construction permits. Table 4.3 highlights the calculated criteria pollutant emissions for the respective building projects based on square footage estimates and associated equipment operating hours during renovation and construction related activities of such scale. The emissions associated with these activities are not expected to exceed 10% of the non-attainment area total emission budget for any criteria pollutant and therefore would not trigger a conformity analysis.

<b>Table 4.3 Estimated Air Emission Impacts From Renovation Activities at Fort Hayes Memorial USARC – Scenario B</b>					
<b>Activity</b>	<b>CO</b>	<b>VOC</b>	<b>NOX</b>	<b>SOX</b>	<b>PM10</b>
Total – All Renovation Projects (Tons)	0.97	0.19	2.36	0.26	0.15
<i>Source: AP-42 Volume 2 Mobile Sources Square Footages provided by Fort Hayes Memorial USARC – Emission results represent approximately 312,000 square foot of building space being renovated</i>					

Based on similar utilization of these facilities, a long-term negligible impact is anticipated for future use of the installation as it relates to emissions from energy use.

Table 4.4 highlights the anticipated increase in air emissions associated with POVs under this scenario resulting in a long-term negligible impact.

<b>Table 4.4 Estimated Air Emission Impacts From Employee POV Use at Fort Hayes Memorial USARC – Scenario B</b>			
<b>Activity</b>	<b>CO</b>	<b>VOC</b>	<b>NOX</b>
Air Emissions – POV Increased Usage (TPY)	4.6	0.1	0.66
<i>Source: AP 42 Mobile Source Emissions (Appendix J (Table 2.01) Notes: Assumes additional 500 POVs utilized 200 days per year. Measured in Tons Per Year (TPY)</i>			

- Indirect Impacts.** Under this scenario, the proposed action would require a temporary influx of contractor personnel to perform the activities. This would result in a negligible short-term adverse impact due to the influx of contractor POVs traveling on the installation to perform the work. This scenario would also likely result in negligible increased indirect air quality impacts associated with increased business stimulus off-post and an associated increase in renovation and construction operational emissions.

## 4.4 BIOLOGICAL RESOURCES

### 4.4.1 Affected Environment

#### 4.4.1.1 Vegetation

Fort Hayes Memorial USARC is developed and urbanized. The vegetation is mowed cool season grass with ornamental shrubs and trees. The site does not have any known suitable habitat to support rare, threatened, and endangered plant species that may occur in Ohio.

#### 4.4.1.2 Wildlife

Wildlife present at Fort Hayes consists of minimal species found in typical urban environments such as rabbits and squirrels. The site has no known habitat or water source to support a wide variety of species.

#### 4.4.1.3 Sensitive Species

##### Federal Species

The US Fish and Wildlife Service (USFWS) administers the Endangered Species Act of 1973. The Act provides Federal protection for plants and animals listed as endangered or threatened. The USFWS lists six federally threatened, endangered, or candidate species in Franklin County, Ohio. These species are listed in Table 4.5.

Scientific Name	Common Name	Federal Status
<i>Myotis sodalis</i>	Indiana Bat	Endangered
<i>Haliaeetus leucocephalus</i>	Bald Eagle	Threatened
<i>Noturus trautmani</i>	Scioto madtom	Endangered
<i>Pleurobema clava</i>	Clubshell mussel	Endangered
<i>Cyprogenia stegaria</i>	Northern riffleshell	Endangered
<i>Villosa fabalis</i>	Rayed Bean	Candidate

Source: USFWS, Ecological Services, Reynoldsburg, Ohio, May 2006

The USFWS was consulted during the development of the 2007 Natural Resource Survey. According to the USFWS the parcel was in range of the Indiana bat (*Myotis sodalis*) and clubshell mussel (*Pleurobema clava*) (USACE, 2004). Both are federally-listed endangered species. However, the Indiana bat requires a habitat that includes mature forests, snags along riparian corridors, and exfoliating bark or cavities in the trunks of trees. None of the required habitat is located at Fort Hayes. The USFWS has also indicated that there is no suitable habitat for the clubshell mussel at Fort Hayes.

##### State Species

The Ohio Department of Natural Resources (ODNR) maintains a list of species that are threatened or endangered within the state of Ohio. According to the ODNR none of these species occur within potential project areas for this EA.

##### Species of Concern

Species of Special Concern (SC) are any non-game species deemed to require conservation measures in an attempt to keep the species from becoming a threatened or endangered species in the State of Ohio. Species of Concern do not have the level of statutory protection as those species listed as threatened or endangered in Ohio. ODNR maintains a list of species that they consider

potentially threatened, special interest, or rare in the State of Ohio. Suitable habitat for these species does not exist at Fort Hayes.

#### 4.4.1.4 Wetlands

No naturally occurring wetlands, including potential wetlands as identified on the Department of the Interior, National Wetland Inventory, Interactive Mapper and the Franklin County Geographic Information System (GIS) database are known to exist at Fort Hayes. The Army completed a Final Natural Resource Survey for this site in 2005 (Parsons, 2005). The Final Natural Resource Survey does not identify any wetlands on the site.

#### 4.4.2 Consequences

##### 4.4.2.1 Alternative 1, No Action Alternative

- **Direct Impacts.** Under this alternative, there would no anticipated changes to the existing baseline conditions with respect to biological resources. The Fort Hayes Memorial USARC would not close and personnel would not be realigned to DSCC; consequently, impacts to these resources are not anticipated.
- **Indirect Impacts.** No indirect impacts are anticipated for this area under this alternative.

##### 4.4.2.2 Impacts of Army Realignment, Closure and Disposal

###### 4.4.2.2.1 Alternative 2, Early Transfer Disposal

- **Direct Impacts.** Under this alternative, there would be a quicker disposal process resulting in reuse and redevelopment on a shorter timeframe. This disposal process would result in no change in baseline conditions with respect to biological resources.

Under this alternative, the disposal would occur prior to any environmental remediation. Presently, there is no evidence of any hazardous material spills or releases on the property that have not been previously controlled or cleaned. However, there would be short-term negligible adverse impacts to biological resources should the redevelopment need environmental clean up. The process of remediation may require the removal or reduction of vegetation to test or clean the underlying soils. There are no known wetlands, or Federal or state threatened, endangered or SC species or species habitat currently at Fort Hayes Memorial USARC (Parsons 2005 and DA 2007). Impacts to these resources are not anticipated.

- **Indirect Impacts.** There are no anticipated changes to baseline conditions under this alternative.

Should environmental remediation activities be required at the site (although none have been identified thus far), the construction and remediation activities could result in short-term adverse impacts on the biological resources in the form of grass cover removal or damage during remediation (construction like) activities.

#### 4.4.2.2 Alternative 3, Traditional Disposal

- **Direct Impacts.** This alternative would have impacts similar to those in Alternative 2; however, the impacts would occur prior to the Army transferring property ownership.
- **Indirect Impacts.** The impacts under this alternative would be similar to those in Alternative 2; however, the clean up would occur prior to disposal.

#### 4.4.2.3 Alternative 4, Caretaker Status Prior to Disposal

- **Direct Impacts.** This alternative would have impacts similar to those in Alternative 2; however, the impacts would occur prior to the Army transferring property ownership.

There would be short-term negligible beneficial impacts on biological resources should the Army find it necessary to place Fort Hayes in caretaker status while environmental remediation activities are being conducted. However, as noted earlier, environmental remediation activities are not anticipated. Long-term maintenance focuses on providing security and preventing degradation, not necessarily on ensuring the aesthetics of the area. If long-term maintenance procedures were implemented; then, there may be less frequent grass mowing. As the grass would get longer and resemble more of an old field, there would be a negligible increase habitat potential. The impacts however would be short-term and negligible.

- **Indirect Impacts.** The impacts under this alternative would be similar to those in Alternative 2; however, the clean up would occur prior to disposal.

#### 4.4.2.3 Potential Impacts of Community Reuse

##### 4.4.2.3.1 Scenario A, Medium Intensity Reuse

- **Direct Impacts.** Under this scenario, existing biological resources would continue to be used and maintained at a similar capacity as the Fort Hayes Memorial USARC. Should redevelopment include the construction of new additions to the existing facilities, or the construction of new facilities these activities would result in removal or reduction of vegetation. There are no known wetlands, or Federal or state threatened, endangered or SC species or species habitat currently at Fort Hayes Memorial USARC, consequently impacts to these resources are not anticipated.
- **Indirect Impacts.** There is the potential for the removal or reduction of vegetation with warehouse or general space reuse. Any removal or reduction may lead to increased soil erosion that would potentially affect nearby water resources. Currently, vegetation covers approximately 3.29 acres of the area. The nearest water resource is the Scioto and Olentangy Rivers located 2 miles away; thus, the impacts to this resource would be negligible.

#### 4.4.2.3.2 Scenario B, Medium-High Intensity Reuse

- **Direct Impacts.** Impacts under this alternative would be similar to those in Scenario A.
- **Indirect Impacts.** Impacts under this alternative would be similar to those in Scenario A.

### 4.5 CULTURAL RESOURCES

#### 4.5.1 Affected Environment

##### 4.5.1.1 Regulatory Overview

A variety of laws and regulations; the National Historic Preservation Act (NHPA) of 1966, as amended and the regulation implementing its Section 106: 36CFR800, Protection of Historic Properties; the Archeological and Historic Preservation Act (AHPA) of 1974; the Archeological Resources Protection Act (ARPA) of 1979, and US Army Regulation (AR) 200-4 protect identified historic properties.

Since the proponent of the proposed action is the DoD and involves Federal funding and Federal permitting, licensing or approval (36 CFR 800.16(y)), this project is under the purview of Section 106 of the NHPA of 1966, as amended. Identification of historic properties was conducted according to the requirements of 36 CFR 800 for Section 106 of the NHPA, and initiation of the process was or will be implemented with the Ohio SHPO. As stipulated in Section 800.8, Section 106 can be coordinated with the requirements of NEPA. Preparation of an EA or an EIS can be sufficient in fulfilling the required determination of effects for Section 106 compliance.

An undertaking is considered to have an effect on a historic property when the undertaking may alter characteristics of the property that may qualify the property for inclusion in the NRHP. An effect is considered adverse when it diminishes the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Adverse effects on historic properties would include, but not be limited to:

- Physical destruction, damage, or alteration of all or part of the property;
- Isolation of the property from or alteration of the character of the property's setting when that character contributes to the property's qualification for the NRHP;
- Introduction of visual, audible, or atmospheric elements that are out of character with the property or alter its setting;
- Neglect of a property resulting in its deterioration or destruction; and
- Transfer, lease, or sale of the property (36 CFR 800.9[b]).

#### **4.5.1.2 Area of Potential Effect Definition**

To identify cultural resources that could be impacted by the proposed action, the area within which historic properties would be affected or are likely to be affected must be determined. As defined by 36 CFR 800.16(d) of Section 106 of the NHPA, the Area of Potential Effect (APE) is the “geographic area or areas within which an undertaking could cause changes in the character or use of historic properties, if any such exists.” In delineating the APE, factors taken into account include the elements such as scale and nature of the proposed project, the existence of buildings, vegetation, and terrain with respect to potential visual or audible impacts, and construction activities necessary for the proposed project. The APE for historic properties for this analysis includes the area where these cultural resources might be directly affected by construction or construction staging activities. Consequently, the APE includes the footprint of the project area, any linear corridors representing construction of infrastructure such as roads and utilities, and an area approximately 200 feet beyond each of the project areas to include areas where NRHP-listed, -eligible, or potentially eligible architectural resources might be directly affected or subject to either visual or audible impacts.

#### **4.5.1.3 Historic Background of Fort Hayes**

In July 1861, the US Congress approved the creation of an armory and arsenal in Columbus, Ohio. The new facility, originally named the Columbus Arsenal, was designed to replace the Ohio Militia State Arsenal as the primary armory and dispatch center for ordnance issued to Ohio troops during the Civil War.

The US government purchased approximately 70 acres at the northeast edge of Columbus for the arsenal on 17 February 1863. The original plan included the construction of 12 buildings and railroad spur. The US Arsenal in Columbus began fulfilling its mission before many of these buildings were completed. The arsenal stored enough equipment in its temporary warehouse to arm 30,000 soldiers by May 1864.

On 24 September 1875, the US Arsenal was transferred to the General Recruiting Service and renamed the Columbus Barracks. Activities at the facility changed from storing and maintaining ordnance to organizing and training volunteer troops in the State of Ohio. From 1875 through 1890, the post instructed new recruits. In 1894, use of the facility was transferred to the US Army Department of the East and garrisoned by members of the 17th Infantry Regiment. Soon thereafter, the facility’s role was expanded in anticipation of hostilities with Spain.

The Columbus Barracks was renamed the Columbus Recruiting Depot in 1905 and was used as the primary induction and training center for recruits assembled in Ohio during World War I. In 1922, the Columbus Recruiting Depot became an administrative headquarters for the 5th Corps and a battalion of the 10th Infantry. That same year, General John J. Pershing renamed the depot Fort Hayes, in honor of the former Ohio governor and nineteenth President of the US, Rutherford B. Hayes.

When the US entered World War II, Fort Hayes was again used as the primary induction center for Ohio troops participating in the conflict. During the post-war era, Fort Hayes was used by various governmental and private agencies including the Ohio National Guard, the Adjutant General of Ohio, and the US Public Health Service. In July 1968, Fort Knox assumed control of Fort Hayes and allowed the 83rd US Army Reserve Command (ARCOM) to establish its headquarters on the facility to administer the training of Army Reserve units in Ohio. In 1970, the Fort Hayes National Historic District (NHD) was accepted on the NRHP. Later that year 49.18 acres of Fort Hayes was determined to be surplus property and was made available for disposal. Approximately 29 acres of the installation on the north and west sides of the Fort Hayes NHD were retained for use by the 83rd ARCOM while the remaining approximately 20 acres located on the south and east sides of the property subsequently sold to the Columbus Public School District.

In 1991, the Columbus Public School District purchased the buildings and property along the west side of the Fort Hayes NHD from the Fort Knox Directorate of Public Works. The 83rd ARCOM was deactivated in 1996, and the Army Reserve units located throughout Ohio were reassigned to the newly-established 88th US Army Reserve Regional Support Command (RSC), headquartered at Fort Snelling, St. Paul, Minnesota. As part of this reorganization, the 88th RSC gained control of land and buildings owned by the US government in the Fort Hayes NHD.

On August 11, 2006, a 4.5-acre tract in the northern part of the Fort Hayes NHD was conveyed by the US Government to the Columbus Public School District. After this transaction, the US government owned 10.78 acres in the southwest corner of Fort Hayes. This parcel was designated for closure and disposal by the BRAC commission in 2005, and is being assessed via this EA (Gardner, 2006).

#### **4.5.1.4 Status of Cultural Resource Inventories and Section 106 Consultations**

In January 1970, Fort Hayes was placed on the NRHP. The Army consulted with the Ohio SHPO with regard to the on-going assessment and management of cultural resources at the Site. The SHPO and Tribal consultation process is ongoing as documented in Appendix A of this EA. Relevant cultural resource inventory excerpts can be found in Appendix C.

##### **Historic Properties**

A Phase II archaeological survey performed in 2005 completed test unit excavations and systematic metal detecting at the East Lawn Triangle and Building 103. Test units encountered the buried remains of Structure 1, a boundary that pre-dates the current stone wall/ iron fence around the facility. However, it exhibits no additional research potential beyond the level of recording associated with this Phase II investigation. No intact cultural features or artifact deposits in the Building 103 locus were found. Artifacts encountered here during survey and testing are broadly associated with late 1890s construction and use of Building 103 continuing through the late twentieth century. Based on analysis of results of Phase II archaeological survey, archaeological clearance for the

portions of site 33FR2304 in the East Lawn Triangle and Building 103 loci was recommended. Although location and context of archaeological remains within the two loci can be associated with a particular facet of local history (i.e., Post-Civil War Era Military Activity in central Ohio), the recorded feature and deposits are not considered to exhibit research potential beyond the current level of documentation. Therefore, these loci should not be considered significant or contributing elements to the NRHP eligibility of the Fort Hayes National Historic District. The Ohio SHPO concurred that no distinctive contributing elements to the Fort Hayes Historic District were identified and that no additional archaeological investigations are needed in the tested areas. Furthermore, it is the SHPO's opinion that additional archaeological investigations within the 1078 acres that comprise the Fort Hayes Memorial USARC are unlikely to result in the identification of historic properties. The Army and the Ohio State Historic Preservation Office should note that the level and extent of archaeological investigations completed during Phase I and II survey at these loci and reported in the Phase I and Phase II report do not preclude the potential for significant archaeological deposits elsewhere within the Fort Hayes National Historic District (33FR2304).

The guardhouse (Building 118) is the only building on the Fort Hayes Memorial USARC 10.78-acre property that is individually listed on the NRHP and is a contributing factor to the Fort Hayes NHD. No other sites are eligible or potentially eligible for listing.

Building 118 originally functioned as a guardhouse and stockade for the Columbus Barracks. It was subsequently used as a military exchange during the mid-twentieth century and for office activities thereafter. The facility has been unoccupied since 2002. Constructed in 1896, it is a one-and-one-half-story, irregular-shaped structure with Italian Renaissance style architectural elements. Historic Preservation Covenants, approved by the SHPO and shown in Appendix A, would be added to the real estate transfer deed. These covenants would place certain restrictions on the use of Building 118, assuring that no adverse affect on historic properties would occur as a result of implementing the proposed action.

### **Tribal Consultation**

Tribal consultation was completed with all federally listed tribes in Ohio to assess what information was needed in order to further identify culturally affiliated properties that may be affected by our proposed closure. The Army received no response from the tribes and has made the determination that the proposed BRAC closure would not have an adverse effect to the Fort Hayes National Historic District due to the addition of Historic Preservation Covenants.

## **4.5.2 Consequences**

### **4.5.2.1 Alternative 1, No Action Alternative**

- **Direct Impacts.** Under this alternative, Fort Hayes Memorial USARC would remain under DoD jurisdiction and no changes would be made to the baseline

conditions. The DoD would be responsible for all laws and regulations under the NHPA associated with the guardhouse.

- **Indirect Impacts.** No indirect impacts to cultural resources are anticipated under this alternative.

#### 4.5.2.2 Impacts of Army Realignment, Closure, and Disposal

##### 4.5.2.2.1 Alternative 2, Early Transfer Disposal

- **Direct Impacts.** Under this alternative, there would be a quicker disposal process resulting in reuse and redevelopment on a shorter timeframe. This disposal process would result in no change in baseline conditions with respect to cultural resources.

Alternative 2 would involve phased relocation of operations and personnel to DSCC. During the realignment period, the cultural resources of the property would be used and maintained. Individual facilities at the USARC would close as personnel relocating to DSCC vacate them. There would be no anticipated direct impacts to cultural resources from realignment and closure activities.

Under Alternative 2, the Army could:

- lease the property to a non-Army entity; transfer the property to another Federal agency who would be responsible for all environmental response;
- defer the requirement to complete environmental cleanup and allow an early transfer of the property; or
- transfer the property to a new owner who agrees to perform all environmental remediation (and no requirement is currently identified), waste management, and environmental compliance activities that are required for the property under Federal and state requirements.

To ensure protection of the existing Fort Hayes properties under any of the above options, early transfer encumbered disposal would include a reuse restriction, or encumbrance, regarding the former guardhouse and surrounding area, which is listed on the NRHP. Proposed alterations to the guardhouse during reuse would be coordinated through the SHPO. Historic Preservation Covenants, approved by the SHPO and shown in Appendix A, would be added to the real estate transfer deed and would place certain restrictions on the use of Building 118. It is anticipated that all maintenance and new construction would comply with these covenants and SHPO requirements to maintain the integrity of the NHD. Additionally, it is anticipated that the guardhouse would be used in a way that complies with all NHPA laws and regulations.

- **Indirect Impacts.** There are no anticipated changes to baseline conditions under this alternative.

The addition of the Historic Preservation Covenants, approved by the SHPO and shown in Appendix A, to the real estate transfer deed would place certain

restrictions on the use of Building 118 and would preserve the integrity of the NHD and Building 118 as a historic property. The implementation of the covenants would likely increase long-term management effort, as the organization responsible for Building 118 would need to coordinate repair, renovation, maintenance, and construction actions with both the SHPO and the Columbus Public School System to ensure consistent management of the Fort Hayes view shed.

#### 4.5.2.2.2 Alternative 3, Traditional Disposal

- **Direct Impacts.** There would be no anticipated direct impacts to cultural resources from realignment and closure activities.

Under Alternative 3 Fort Hayes would transfer the property to other government agencies or dispose of it to non-government organizations once it can certify that all required environmental action necessary to protect human health or the environment has been taken before the transfer or disposal. Presently, it is expected that the Fort Hayes Memorial USARC property would be transferred to the new owner immediately following closure. Outside of the physical moving of equipment, office supplies, etc., no major pre-disposal actions are expected to be needed as part of the closure process. To ensure protection of the existing Fort Hayes properties the traditional encumbered disposal would include a reuse restriction, or encumbrance, regarding the former guardhouse and surrounding area, which is listed on the NRHP. Proposed alterations to the guardhouse during reuse would be coordinated through the SHPO. Historic Preservation Covenants, approved by the SHPO and shown in Appendix A, would be added to the real estate transfer deed and would place certain restrictions on the use of Building 118. It is anticipated that all maintenance and new construction would comply with these covenants and SHPO requirements to maintain the integrity of the NHD. Additionally, it is anticipated that the guardhouse would be used in a way that complies with all NHPA laws and regulations.

- **Indirect Impacts.** The impacts under this alternative would be similar to those in Alternative 2; however, the clean up would occur prior to disposal. The addition of the Historic Preservation Covenants, approved by the SHPO and shown in Appendix A, to the real estate transfer deed would place certain restrictions on the use of Building 118 and would preserve the integrity of the NHD and Building 118 as a historic property. The implementation of the covenants would likely increase long-term management effort, as the organization responsible for Building 118 would need to coordinate repair, renovation, maintenance, and construction actions with both the SHPO and the Columbus Public School System to ensure consistent management of the Fort Hayes view shed.

#### 4.5.2.2.3 Alternative 4, Caretaker Status Prior to Disposal

- **Direct Impacts.** There would be no anticipated direct impacts to cultural resources from realignment and closure activities.

Under the caretaker status alternative, the Army will secure the property after the military mission has ended, to insure public safety and the security of remaining government property and environmental remediation actions. Long term maintenance would be continued to insure security and prevent degradation. There would be no direct impacts to cultural resources under this Alternative.

To ensure protection of the existing Fort Hayes properties the encumbered disposal would include a reuse restriction, or encumbrance, regarding the former guardhouse and surrounding area, which is listed on the NRHP. Proposed alterations to the guardhouse during reuse would be coordinated through the SHPO. Historic Preservation Covenants, approved by the SHPO and shown in Appendix A, would be added to the real estate transfer deed and would place certain restrictions on the use of Building 118. It is anticipated that all maintenance and new construction would comply with these covenants and SHPO requirements to maintain the integrity of the NHD. Additionally, it is anticipated that the guardhouse would be used in a way that complies with all NHPA laws and regulations.

- **Indirect Impacts.** There would be negligible short-term adverse impacts on the historic view shed should the army find it necessary to place Fort Hayes in caretaker status for an indefinite period. Maintenance would be continued to insure security and prevent degradation. However, there may be decrease in frequency of mowing, weeding, and visual maintenance that may have a short-term impact on the view shed of the NHD.

The addition of the Historic Preservation Covenants, approved by the SHPO and shown in Appendix A, to the real estate transfer deed would place certain restrictions on the use of Building 118 and would preserve the integrity of the NHD and Building 118 as a historic property. The implementation of the covenants would likely increase long-term management effort, as the organization responsible for Building 118 would need to coordinate repair, renovation, maintenance, and construction actions with both the SHPO and the Columbus Public School System to ensure consistent management of the Fort Hayes view shed.

### 4.5.2.3 Potential Impacts of Community Reuse

#### 4.5.2.3.1 Scenario A, Medium Intensity Reuse

- **Direct Impacts.** There is the potential for negligible adverse impacts under this scenario. The lower end of the medium intensity range would result in use of current facilities resulting in no impact. If the higher end of the range is desired, it would result in additional construction on the former Fort Hayes site. There is a negligible potential for adverse impacts to cultural resources from inadvertent damage from construction equipment and construction and renovation activities. Negligible impacts to the view shed are also anticipated under this scenario with the construction of additional buildings within the NHD. The level of impact would depend on whether the buildings consist of mostly warehousing (1 story) or administration (3-5 story). However, transfer of the 10.78 acres of real estate

and the three buildings to a private organization would require that organization to consult with the State of Ohio SHPO and Historic Preservation Covenants, approved by the SHPO and shown in Appendix A, would be added to the real estate transfer deed and would place certain restrictions on the use of Building 118. It is anticipated that all new construction would comply with these covenants and SHPO requirements to maintain the integrity of the NHD. Additionally, it is anticipated that the guardhouse would be used in a way that complies with all NHPA laws and regulations.

- **Indirect Impacts.** Management of the entire NHD as a single property would likely enhance long-term management of the area consistent with desired historic preservation.

#### 4.5.2.3.2 Scenario B, Medium-High Intensity Reuse

- **Direct Impacts.** Under the medium-high intensity reuse, there is the potential for minor adverse impacts. Substantial construction would be necessary to accommodate this level of reuse. There would need to be 329,000 SF of either increased vertical height or building footprint. The impacts would be similar to Scenario A, but there would be a higher potential for adverse cultural resource impacts from damage from construction equipment and construction and renovation activities. Additionally, a larger number of new buildings on the site would have a minor impact on the integrity of the NHD and its view shed. The level of impact would depend on whether the buildings consist of mostly warehousing (1 story) or administration (3 to 5 stories). However, transfer of the 10.78 acres of real estate and the three buildings to a private organization would require that organization to consult with the Ohio SHPO and Historic Preservation Covenants, approved by the SHPO and shown in Appendix A, would be added to the real estate transfer deed and would place certain restrictions on the use of Building 118. It is anticipated that all new construction would comply with these covenants and SHPO requirements to maintain the integrity of the NHD. Additionally, it is anticipated that the guardhouse would be used in a way that complies with all NHPA laws and regulations.
- **Indirect Impacts.** Impacts from this scenario would be similar to those in Scenario A.

## 4.6 HAZARDOUS AND TOXIC SUBSTANCES

### 4.6.1 Affected Environment

Specific environmental statutes and regulations govern hazardous material and hazardous waste management activities at Fort Hayes Memorial USARC. For the purpose of this analysis, the terms *hazardous waste*, *hazardous materials*, and *toxic substances* include those substances defined as hazardous by CERCLA, the Resource Conservation and Recovery Act (RCRA), AR 200-1, and Toxic Substances Control Act (TSCA). In general, they include substances that, because of their quantity, concentration, or physical, chemical, or toxic characteristics, may present moderate danger to public health or welfare or the environment upon being released.

#### 4.6.1.1 Uses of Hazardous Materials

Prior to 1976, the installation was utilized for offices, training classrooms, a paint shop, vehicle maintenance shop, and personnel support facilities.

Substances used in support of these operations included Petroleum, Oil and Lubricants (POLs) and solvents. Hazardous wastes generated from these support operations included ignitable and corrosive wastes, spent chlorinated solvents, and unused chemical products. Small quantities of POLs and hazardous materials are currently used in the equipment maintenance shop area. Storage areas for these materials and wastes include appropriate secondary containment to help preclude inadvertent spills.

Environmental surveys of buildings show the presence of ACM. LBP was not present as part of these surveys and radon levels were below allowable USEPA levels. Additionally, any older model fluorescent light fixtures within these building units, not clearly identified, would be assumed to contain PCBs. The same precautionary measures associated with the buildings would be incorporated with the Proposed Action for the respective structures and buildings (USACE 2007).

#### 4.6.1.2 Storage and Handling Areas

Hazardous substances were used historically at the site however; there is no evidence of any hazardous substance releases at the site. Only small quantities of hazardous materials are currently used at the existing maintenance shop, and as noted above these storage areas include appropriate secondary containment to help preclude inadvertent spills. Petroleum storage is predominantly in 55-gallon storage drums. No petroleum underground storage tanks (UST) or above ground storage tanks (AST) were located on the property (USACE 2007).

### 4.6.2 Consequences

#### 4.6.2.1 Alternative 1, No Action Alternative

- **Direct Impacts.** Under this alternative, no changes in existing baseline conditions are anticipated. The Fort Hayes Memorial USARC would not close and personnel would not be realigned to DSCC. Hazardous material use would continue at its current rate. Existing maintenance procedures and BMPs help reduce the potential for environmental releases, and these would continue. Any encapsulation or removal projects would be conducted by the Army in accordance with Federal, State, local, and DoD standards.
- **Indirect Impacts.** No indirect impacts are anticipated for this area under this scenario.

#### 4.6.2.2 Impacts of Army Realignment, Closure, and Disposal

Under these alternatives, the Fort Hayes Memorial USARC would close and personnel would be realigned to DSCC. Hazardous substances that would be transferred to DSCC are part of the realignment activities. The transfer of

hazardous substances would be conducted by the Army in accordance with US Department of Transportation (DOT) and RCRA requirements, where applicable.

#### 4.6.2.2.1 Alternative 2, Early Transfer Disposal

- **Direct Impacts.** Vehicle and equipment use for renovation or remediation activities would have a short-term negligible adverse impact due to an increase in the potential for spills as compared to Alternative 1. BMPs such as the incorporation of the Spill Prevention Plan (SPP) would reduce the potential for spills during these activities and the transportation of hazardous substances

Under the early transfer disposal approach, disposal would occur prior to any environmental remediation in accordance with 42 USC 9620 (h)(3)(C). Currently there are no environmental hazards identified on the site requiring remediation. This disposal process would be conducted by the Army and result in no change in baseline conditions with respect to hazardous substance use. There would be a short-term beneficial impact from the hazardous substances being removed from the site.

The LRA would ensure that any hazardous substances such as PCBs, ACMs and LBPs were either removed and or encapsulated and clearly identified. Such activities would be conducted in accordance with Federal, State, and DoD standards.

- **Indirect Impacts.** Impacts from this alternative would be similar to those identified in Alternative 1.

#### 4.6.2.2.2 Alternative 3, Traditional Disposal

- **Direct Impacts.** Impacts from this alternative would be similar to those identified in Alternative 2.

Should environmental remediation be required (and no requirement is currently identified), the remediation would occur prior to transfer of the property. The Army would ensure that any hazardous substances such as ACMs, PCBs and LBPs were either removed, or encapsulated and clearly identified. Such activities would be conducted in accordance with Federal, State, and DoD standards.

- **Indirect Impacts.** The impacts under this alternative would be similar to those in Alternative 2; however, the clean up would occur prior to disposal.

#### 4.6.2.2.3 Alternative 4, Caretaker Status Prior to Disposal

- **Direct Impacts.** The impacts under this alternative would be similar to those in Alternative 2; however, the clean up would occur prior to disposal.
- **Indirect Impacts.** The impacts under this alternative would be similar to those in Alternative 2; however, the clean up would occur prior to disposal.

### 4.6.2.3 Potential Impacts of Community Reuse

#### 4.6.2.3.1 Scenario A, Medium Intensity Reuse

- **Direct Impacts.** Under this scenario, any renovation projects that would require the removal of ACM, LBP and PCB materials would be managed and disposed of by the new owner. Disposal activities would be in accordance with Federal, state, local and DoD requirements and result in a minor temporary impact. Long-term beneficial impacts are anticipated as these materials are removed from the site. Should there be a need for any renovation the anticipated activity would be minimal resulting in a negligible short-term adverse impact.
- **Indirect Impacts.** No indirect impacts are anticipated for this area under this scenario.

#### 4.6.2.3.2 Scenario B, Medium-High Intensity Reuse

- **Direct Impacts.** Under this scenario, impacts from this scenario would be similar to those identified in Scenario A. Due to the increased potential in building renovations, there would be a greater likelihood of these activities occurring compared to Scenario A. Additionally, the amount of renovation and new construction required for this scenario is greater than Scenario A. Because of this, there is a greater impact compared to Scenario A. Consequently, there would be minor short-term adverse impacts, due to the potential for releases and spills that might occur during renovation, construction and continued operations by the new facility user.
- **Indirect Impacts.** No indirect impacts are anticipated for this area under this scenario.

## 4.7 LAND USE

### 4.7.1 Affected Environment

Presently, the Fort Hayes Memorial USARC's primary mission is to provide support for the US Army Reserve including the 391st Military Police Battalion, the 342nd Military Police Company, and the 375th Criminal Investigation Detachment.

#### 4.7.1.1 Regional Setting and Location

The Fort Hayes Memorial USARC is located in Franklin County, Ohio and within the City of Columbus at 530 Jack Gibbs Boulevard. The 10.78-acre parcel is situated on a main thoroughfare, Interstate Highway (I) 670, and is surrounded on the other property boundaries by Dolly Madison Bakery and the Columbus Public School facilities that are currently under extensive renovation. The land and buildings that the Columbus Public School system currently own were originally part of the Fort Hayes Military Reservation.

#### 4.7.1.2 Installation Land Use

The land uses at the Fort Hayes Memorial USARC would be best described as office/administration, maintenance, open space, and classroom/training areas.

The Fort Hayes Memorial USARC contains three permanent structures and two parking lots. Two of the three buildings are being utilized. These two buildings are the USARC Building and the OMS. The USARC is used as a classroom training facility and an office facility. The OMS is 6-bay light vehicle maintenance shop containing office space and equipment storage. The third building (Building 118) is a former guardhouse, which was constructed in 1896, is located just east of the USARC Building. This building is currently closed but is listed on the NRHP. The two parking lots consist of a POV parking lot and a MEP lot. The MEP lot is located proximate to the OMS building while the POV parking area is located between Building 118 and the USAR Center.

#### **4.7.1.3 Surrounding Land Use**

Land to the north and west of the property was originally owned by the DoD and functioned as the Fort Hayes Memorial Military Reserve. The facility has been owned by the Columbus Public School District since 1971 and is under renovation to become the Fort Hayes Alternative Vocational High School. Interstate 670 is located to the east of the property and the Dolly Madison Baking Facility is located to the south of the facility. The Dolly Madison Baking Facility is zoned as light industrial.

#### **4.7.1.4 Current and Future Development in the Region of Influence**

The Jeffery Place is a 41.5-acre urban housing complex located at the southeast corner of Fourth Street and East First Avenue. The complex is approximately 0.5 mile from Fort Hayes, but is separated from the installation by I-670. The complex is currently under construction and when completed will contain 1,100 residential properties, 90,000 SF of retail space, and 4 acres of park and green space. Prices of the properties range from \$150,000 to \$1.5-million.

### **4.7.2 Consequences**

#### **4.7.2.1 Alternative 1, No Action Alternative**

- **Direct Impacts.** Under this alternative, land use would not change at the Fort Hayes Memorial USARC; consequently, no land use impacts are anticipated.
- **Indirect Impacts.** No indirect impacts on land use are anticipated under this alternative.

#### **4.7.2.2 Impacts of Army Realignment, Closure, and Disposal**

##### **4.7.2.2.1 Alternative 2, Early Transfer Disposal**

- **Direct Impacts.** Presently, it is anticipated that transfer of property ownership would occur immediately. Immediate disposal of the Fort Hayes Memorial USARC would not result in any direct land use impacts.
- **Indirect Impacts.** No indirect impacts are anticipated under this alternative.

#### 4.7.2.2.2 Alternative 3, Traditional Disposal

- **Direct Impacts.** Traditional disposal of the Fort Hayes Memorial USARC would not result in any direct land use impacts.
- **Indirect Impacts.** No indirect impacts are anticipated under this alternative.

#### 4.7.2.2.3 Alternative 4, Caretaker Status Prior to Disposal

- **Direct Impacts.** Caretaker status prior to disposal of the Fort Hayes Memorial USARC would not result in any direct land use impacts.
- **Indirect Impacts.** No indirect impacts are anticipated under this alternative.

#### 4.7.2.3 Potential Impacts of Community Reuse

##### 4.7.2.3.1 Scenario A, Medium Intensity Reuse

- **Direct Impacts.** The most likely reuse for the buildings and real estate under this scenario would be in support of the proximate high school, homeless shelter or office/commercial or warehouse/industrial land use. From a land use perspective these uses are generally compatible with existing surrounding land uses (high school, administration, training, and light industrial); thereby, resulting in a negligible impact with respect to land use.
- **Indirect Impacts.** Negligible land use impacts would occur on the property.

##### 4.7.2.3.2 Scenario B, Medium-High Intensity Reuse

- **Direct Impacts.** Direct adverse impacts to land use under Scenario B would be similar to those discussed under medium intensity reuse (Scenario A). However, horizontal increases in land use could demand green/open space consumption on the property, thereby causing negligible adverse impacts.

The development proposed in Scenario B is compatible with areas to the south and southwest that are currently zoned for commercial, manufacturing, and residential land use. However, development proposed under medium high intensity reuse is incompatible with the high school land use located north and northwest of the subject property, hence, creating a minor adverse impact.

- **Indirect Impacts.** It is likely that development carried out to the maximum floor area ratio (0.70) could require utility upgrades or expansion, producing negligible adverse impacts.

## 4.8 NOISE

### 4.8.1 Affected Environment

The Noise Control Act of 1972 directs Federal agencies to comply with Federal, state, and local noise control regulations. The Act also exempts noise generated by weapons and equipment in military training areas from noise regulation. AR 200-1(Chapter 7), *Environmental Protection and Enhancement*, incorporates Federal laws on environmental noise for Army activities through the use of the Army's Environmental Noise Management

Program. Studies prepared to comply with AR 200-1 are intended to protect an installation's mission and the public by identifying areas adversely affected by noise associated with the installation's facilities and aircraft operations.

Noise is defined as unwanted sound, indicating that perceived noise impacts are inherently subjective. Measured in terms of air pressure, sound intensity spans several orders of magnitude. As a result, the response of the human ear to sound is best represented by a logarithmic scale rather than a linear scale. The basic unit of measure on this logarithmic scale is the decibel (dB), and various weighted decibel scales (i.e., A, B, C) are used to approximate how people perceive different types of sounds. USEPA has found that widespread community complaints occur when an intrusive sound is 5 dB or more above the background noise level.

To account for these fluctuations in noise levels across installations, USEPA defined a long-term average noise descriptor, the "equivalent" noise level, or Leq. Finding that the Leq did not adequately account for individuals' increased sensitivity to sound at night, USEPA defined the Day-Night Average Sound Level (DNL), which consists of the Leq with a 10-dB penalty for night-time noise. USEPA has endorsed the DNL as the accepted noise descriptor for assessing community noise impacts.

The Army recognizes three noise impact zones for its installations, the definitions of which are based on A-weighted noise levels (dBA) for transportation and small-arms noise, and C-weighted noise levels (dBC) for blast noise. dBA is used interchangeably with the term A-weighted day-night level (ADNL) and dBC is used interchangeably with the term C-weighted day-night level (CDNL). These Noise Zones (NZ) are as follows:

- Zone III (Unacceptable (for noise-sensitive activities)) is the area where the DNL is greater than 75 dBA for aircraft, vehicle, and small arms range noise, and greater than 70 dBC for noise from weapon systems larger than 20 millimeter (mm). This zone is considered an area of severe noise exposure and is unacceptable for noise-sensitive activities.
- Zone II (Normally Unacceptable (for noise-sensitive activities)) is the area where the DNL is between 65 and 75 dBA or between 62 and 70 dBC. This area is considered to have a significant noise exposure and is, therefore, normally only acceptable for activities such as industrial, manufacturing, transportation, and resource production. However, if the community determines that these land areas must be used for residential purposes, then noise level reduction features should be incorporated into the design and construction of the buildings.
- Zone I (Acceptable (for noise-sensitive activities)) is the area where the DNL is less than 65 dBA or less than 62 dBC. This area, considered to have moderate to minimal noise exposure from aircraft operations, weapons firing and other noise sources, is acceptable for noise-sensitive land uses including housing, schools, and medical facilities.

Currently, the major sources of noise at the Fort Hayes Memorial USARC are automobiles and trucks. Noise levels attributed to the installation do not have adverse impacts on adjacent residential, industrial, and commercial areas.

## 4.8.2 Consequences

### 4.8.2.1 Alternative 1, No Action Alternative

- **Direct Impacts.** Under this alternative, noise levels attributed to Fort Hayes would not be impacted due to the continuation of the level of vehicle use and in the types of vehicles operating at the site.
- **Indirect Impacts.** No indirect impacts on noise levels are anticipated under this alternative.

### 4.8.2.2 Impacts of Army Realignment, Closure, and Disposal

#### 4.8.2.2.1 Alternative 2, Early Transfer Disposal

- **Direct Impacts.** As currently envisioned transfer of property ownership would occur immediately resulting in no direct impacts. No anticipated above baseline noise impacts are expected under this alternative.

Under this alternative, the disposal would occur prior to any environmental remediation. Presently, there is no evidence of any hazardous material spills or releases on the property that have not been previously controlled or cleaned. However, there could be short-term negligible adverse impacts because of noise from environmental remediation (construction) equipment and activities should the redevelopment need environmental clean up. The process of remediation may require the removal of vegetation and soils to test or clean the underlying soils.

- **Indirect Impacts.** No additional indirect impacts are anticipated under this alternative.

#### 4.8.2.2.2 Alternative 3, Traditional Disposal

- **Direct Impacts.** The impacts under this alternative would be similar to those in Alternative 2; however, the clean up would occur prior to disposal.
- **Indirect Impacts.** The impacts under this alternative would be similar to those in Alternative 2; however, the clean up would occur prior to disposal.

#### 4.8.2.2.3 Alternative 4, Caretaker Status Prior to Disposal

- **Direct Impacts.** Currently, caretaker status is not an anticipated action. Thus, increases in noise levels are not expected with proposed action. If the Army finds it necessary to place Fort Hayes in caretaker status for an indefinite period, the Army would assume safeguards against fire, theft, and damage from the elements. Likely that these caretaker activities would result in noise levels below current baseline levels. These reduced noise levels would be short-term. Once required environmental remediation activities started, the environmental remediation activities would result in short-term increase in noise levels. Both of these changes in noise levels would be negligible.

- **Indirect Impacts.** No indirect impacts on existing noise levels are anticipated as compared to baseline conditions.

#### 4.8.2.3 Potential Impacts of Community Reuse

##### 4.8.2.3.1 Scenario A, Medium Intensity Reuse

- **Direct Impacts.** Current activities at the Fort Hayes Memorial USARC represent medium intensity usage. Consequently, continued medium-use intensity usage of the area is not expected to result in changes in the noise level emitted from the site.
- **Indirect Impacts.** No indirect impacts on existing noise levels are anticipated as compared to baseline conditions.

##### 4.8.2.3.2 Scenario B, Medium-High Intensity Reuse

- **Direct Impacts.** Minor short-term adverse impacts would occur at Fort Hayes due to increased noise levels associated with the increased activity at the site. Short-term impacts would be expected due to construction and renovation activity. Construction noise, including construction vehicle and equipment noise, typically does not contribute substantially to long-term average noise levels but consists of frequent, highly intrusive sounds of 87 to 96 dBA (Suter, 2002). Negligible long-term impacts would occur based on similar vehicle usage for future activities at the installation. Additionally as personnel arrive at and depart from the site there would be a minor increase in noise; however, this noise would be of relatively short duration and intensity.
- **Indirect Impacts.** No indirect impacts on existing noise levels are anticipated as compared to baseline conditions.

## 4.9 SOCIOECONOMICS

The Fort Hayes Memorial USARC is located in downtown Columbus, Ohio, the State Capital and also the county seat of Franklin County. Franklin County is one of eight counties comprising the Columbus Metropolitan Statistical Area (MSA), which is considered the Fort Hayes Memorial USARC Region of Influence (ROI) for this socioeconomic analysis. Other counties within the ROI include Delaware, Fairfield, Licking, Madison, Morrow, Pickaway, and Union. The Columbus MSA realizes the greatest social and economic impacts from operations at the USARC. These impacts include, but are not limited to, population, employment, personal income, business sales, housing and education.

### 4.9.1 Affected Environment

The following sections discuss the existing economic and social conditions of the Fort Hayes Memorial USARC ROI with respect to labor force, employment, population, housing, and quality of life.

#### 4.9.1.1 Economic Development

##### Regional Economic Activity

The annual civilian labor force within the Columbus, Ohio MSA was approximately 923,000 workers in 2005 (BLS, 2005), with total employment of the labor force estimated at 874,400 (BLS, 2005). Approximately 65 % of the labor force is located in Franklin County. The MSA's 2005 average annual labor force represented almost a 4% increase from 2000. The current Franklin County labor force represents almost a 2% increase since 2000. The average annual unemployment rate in the MSA in 2005 was 5.3 %, lower than the statewide average of 5.9 %, noted on Table 4.6 below.

<b>Table 4.6</b>			
<b>Annual Civilian Labor Force and Unemployment Rate, Fort Hayes Memorial USARC Region of Influence, 2005</b>			
<b>Jurisdiction</b>	<b>%Increase, 2000-2005</b>	<b>2005 Labor Force</b>	<b>Unemployment Rate (%)</b>
Columbus MSA	3.7	923,018	5.3
Franklin County	1.7	604,384	5.3
Ohio	1.6	5,900,354	5.9

*Source: US Department of Labor, Bureau of Labor Statistics, 2005.*

Employment by the major industry sectors by “place of work” for 2004 is shown in Table 4.7. Employment by “place of work” reflects workers commuting to work outside their county of residence and, thus, results in the recipient county’s employment exceeding the county labor force. Total employment within the Columbus MSA was approximately 1,140,000 workers in 2004, a 1% increase from 2001. Local and regional employment trends reflect national trends with the services, government, and retail trade sectors accounting for the majority of the employment. Since Columbus is the State Capital and also home to Ohio State University, public sector and non-profit jobs provide the largest single source of employment within the City of Columbus. Services and government account for almost 60 % of the employment in the Columbus MSA. Health care and social assistance comprise the predominant employment groups within the service sector. Employment distribution among the various industry sectors in Franklin County reflects that of the Columbus MSA.

<b>Table 4.7</b>		
<b>Total Full Time and Part-Time Employment by Industry by Place of Work, Fort Hayes Memorial USARC Region of Influence, 2004 (North American Industrial Classification System)</b>		
<b>Industry</b>	<b>Columbus, Ohio MSA</b>	
	<b>Total</b>	<b>Percent</b>
Farm Employment	9,048	<1
Forestry, Fisheries	(D)	-
Mining	2,133	<1
Construction	59,542	5
Manufacturing	83,768	8
Transportation, Warehousing, Utilities	(D)	-
Wholesale Trade	39,822	4
Retail Trade	132,049	12
Finance, Insurance, Real Estate	112,792	10
Services	482,592	44
Government	164,896	15
<b>TOTAL EMPLOYMENT<sup>1</sup></b>	<b>1,140,174</b>	<b>100</b>
<i>Source: US Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System, 2004.</i>		
<i>Notes: (D) Not shown to avoid disclosure of confidential information. Estimates included in totals.</i>		
<i>1 Total of column does not equal 1,140,174 because of non-disclosure of employment information for certain industry sectors.</i>		

Franklin County has experienced modest sustained employment and population growth since 1990. Table 4.8 portrays the largest employers in the Columbus, Ohio MSA.

<b>Table 4.8 Largest Employers, Columbus, Ohio MSA</b>	
<b>Employer</b>	<b>Number of Employees</b>
State of Ohio	26,037
The Ohio State University	17,361
United States Government	13,300
JP Morgan Chase & Company	12,130
Nationwide Financial Services	11,293
OhioHealth	8,398
Columbus Public Schools	8,024
City of Columbus	7,919
Limited Brands Retail	7,200
Honda of America Manufacturing, Inc.	6,350
<i>Source: Greater Columbus, Ohio, Chamber of Commerce, 2004.</i>	

#### 4.9.1.2 Demographics

Table 4.9 portrays the population trends and projections for the Columbus MSA, Franklin County, and the City of Columbus since 1990. The population of the Columbus MSA increased from 1,377,419 in 1990 to 1,612,694 in 2000. This represented an approximate 12 % increase compared to a statewide increase of less than 5% during the same time period. However, a portion of the population increase in the MSA was due to the addition of two counties to the Columbus MSA. Population growth in Franklin County and the City of Columbus during this period was approximately the same as the MSA's relative population increase.

The current population estimate of 1,708,625 for the Columbus MSA represents a 6% increase since 2000, considerably higher than the statewide increase of less than 1%. Delaware County had the greatest relative growth (36 %) within the Columbus MSA during this 5-year period, followed by Fairfield County and Union County. The respective estimated 2005 population for Franklin County and the City of Columbus represents only a 2% increase since 2000. Population projections for 2015 indicate a continuation of current and recent population trends for the Columbus MSA and its individual component counties.

<b>Table 4.9 Regional and Local Population Trends, Fort Hayes Memorial USARC Region of Influence, 1990-2015</b>					
<b>Jurisdiction</b>	<b>2015 Projected Population<sup>1</sup></b>	<b>2005 Population Estimates<sup>2</sup></b>	<b>Percent Change 1990-2000</b>	<b>2000 Population</b>	<b>1990 Population</b>
Columbus MSA	1,901,640	1,708,625	11.8	1,612,6943	1,377,419
Franklin County	1,195,310	1,090,771	11.2	1,068,978	961,437
City of Columbus	NA	730,657	12.4	711,4704	632,910
State of Ohio	11,816,170	11,464,042	4.6	11,353,140	10,847,115

*Source: US Department of Commerce, US Census Bureau, 1990 and 2000 US Census.*

*Notes*

- 1 Ohio Department of Development, Office of Strategic Research, July, 2003.*
- 2 US Census Bureau, Population Estimates Program.*
- 3 Morrow and Union counties were added to the Columbus MSA in the 2000 US Census, accounting for an additional 72,537 people in the population count of 1,540,157 for the original MSA's six counties.*
- 4 A portion of the increase in population for the City of Columbus is due to annexations.*

*(NA) Data not available at this geographic level.*

The dynamics of population change responsible for population growth or decline are natural increase (births minus deaths) and net migration. Net migration is the difference between people moving in (in-migration) and people moving out (out-migration) of the area. Table 4.10 portrays the relative importance of these two components of population growth for the Columbus MSA and Franklin County during the 2000-2004 timeframe.

In-migration has been a positive factor in population growth in the Columbus MSA accounting for 33 % of the population increase during the 2000-2004 timeframe. Net in-migration has been responsible for the majority of the recent population growth in Delaware, Fairfield, Licking and Morrow counties, while out-migration has greatly exceeded in-migration in Franklin County. This pattern reflects national trends in the migration of people from urban core areas to the exurban or semi-rural areas of an MSA. On a statewide level, in-migration has been a negative factor in population growth as the State of Ohio had a net out-migration of almost 70,000 people during the 2000-2004 period.

Jurisdiction	Population Increase <sup>1</sup>	Natural Increase	Net Migration <sup>2</sup>	Percent Increase Due to Migration
Columbus MSA	78,333	51,188	25,317	33
Franklin County	20,102	37,793	(17,296)	0
Ohio	105,866	172,340	(69,725)	0

*Source: US Department of Commerce, US Census Bureau, Population Division*

*Notes* 1 The estimated components of population change will not equal the total population increase because of a small residual after controlling for the differences between sub-national and national population estimates.

2 Includes both domestic and international migration.

Parentheses denote decrease

### 4.9.1.3 Housing

#### Regional Housing and Household Characteristics

Table 4.11 provides housing information for the Fort Hayes Memorial USARC Region of Influence. In 1999 there were a total of 680,416 housing units in the Columbus MSA according to the 2000 US Census. The number of housing units increased by almost 20 % during the 1990-2000 timeframe. Approximately 70 % of the total housing units are in Franklin County, with the majority in the City of Columbus.

According to the 2000 US Census, single-family residential is the dominant housing type, comprising over 60 % of the total housing units within the Columbus MSA. Residential building permits issued within the MSA since 2000 reflect a continuation of the popularity of this housing type. Over 12,000 building permits were issued for residential units in the Columbus MSA during 2005, with 60 % of the authorized units in Franklin County.

Selected housing characteristics related to occupancy status, median value, vacancy rate, and median household income are shown in Table 4.11. The owner-occupancy rate approximates 60 % for the Columbus MSA and Franklin County, while the city of Columbus has an owner-occupancy rate below 50 %. The median value of \$120,115 for owner-occupied housing in the Columbus MSA was considerably higher than the statewide median value. Median values of owner-occupied housing vary widely within the Columbus MSA, ranging from \$97,100 in Morrow County to \$188,000 in Delaware County according to the 2000 US Census. The City of Columbus has a median value considerably below the Columbus MSA median value. Approximately 6% of the housing units within the Columbus MSA were vacant in 2000, with slightly higher vacancy rates in Franklin County, and the City of Columbus.

<b>Jurisdiction</b>	<b>Total Housing Units 2000</b>	<b>Percent Vacant 2000</b>	<b>Percent Owner Occupied 2000</b>	<b>Median Value Owner Occupied 2000</b>	<b>Median Rent Renter Occupied 2000</b>	<b>Median Household Income 2000</b>
Columbus MSA	680,416	6.4	59.0	\$120,115	\$475	\$44,870
Franklin County	471,016	6.8	56.9	\$113,700	\$496	\$42,734
City of Columbus	327,175	7.8	49.1	\$99,100	\$490	\$37,897
State of Ohio	4,783,051	7.0	69.1	\$100,500	\$423	\$40,956

*Source: US Department of Commerce, Bureau of the Census, Population, and Housing Characteristics, 2000.*

As shown in Table 4.11, the median household income in the Columbus MSA in 2000 was \$44,870 compared to a statewide median of approximately \$41,000. Median household incomes range from \$40,882 in Morrow County to \$67,258 in Delaware County. The median household incomes in Franklin County and the City of Columbus are below the Columbus MSA median income. In 2000 there were a total of 636,604 households in the Columbus MSA, which represented an increase of 20 % from 1990. The median age of the population was 32.5 years in Franklin County compared to 34.5 years for the Columbus MSA.

The November, 2006, Columbus and Central Ohio Multiple Listing Service (MLS) contained over 9,000 single-family homes listed for sale in Franklin County. The median listed price ranged between \$150,000 and \$200,000. Table 4.12 provides the distribution of these current for-sale properties by listed price range.

<b>Listed Price Range</b>	<b>Number of Homes Listed</b>
Under \$100,000	2,215
\$100,000 - \$125,000	893
\$125,000 - \$150,000	1,064
\$150,000 - \$175,000	890
\$175,000 - \$200,000	740
\$200,000 - \$225,000	544
\$225,000 - \$300,000	1,035
\$300,000 - \$400,000	725
Over \$400,000	915
<b>TOTAL</b>	<b>9,021</b>

*Source: Columbus and Central Ohio Multiple Listing Service, November, 2006.*

#### **4.9.1.4 Quality of Life**

##### **Education**

There are 16 public school districts in Franklin County with a total enrollment exceeding 165,000 students in the fall of 2006. Facilities include 195 elementary schools; 59 middle schools; 43 high schools; and a number of special schools and career centers. The Columbus City Public Schools is the largest district with an enrollment exceeding 58,000, and consists of over 120 elementary, middle, and high schools.

In 1997 the Ohio School Facilities Commission was established to provide funding, management, oversight and technical assistance to local school districts for construction and renovation of school facilities. Recognizing the magnitude of need in the urban districts, the Accelerated Urban Program was established by the State Legislature. In this regard, a Master Facilities Plan was developed for the Columbus City Public School District. This plan represents one of the largest school improvement programs among urban school districts in the State of Ohio. Many of the existing schools within the district are cramped and have aging infrastructure. The Long Range Master Facilities Plan proposes the construction of approximately 50 new elementary schools and renovations to 25 elementary schools; construction of 11 new middle schools and renovations to 16 middle schools; and construction of one new high school and renovations/additions to 17 high schools. Almost all of the proposed new construction would involve the replacement and renovation of existing schools. Several elementary schools have been newly constructed or renovated since the Facilities Plan was implemented, with 38 improvement projects planned for completion by December, 2005.

In addition to the above public school systems, Franklin County and the City of Columbus are also served by a number of non-public schools. The City of Columbus is served by more than 13 charter schools and 12 private and parochial schools.

Columbus is home to The Ohio State University, which is one of the largest college campuses in the United States. Other institutions of higher learning in the Columbus MSA include Columbus State Community College; Franklin University; Ohio Dominican University; the Columbus College of Art and Design; Ohio Wesleyan University; Capital University; Denison University; Otterbein College; and DeVry University.

##### **Health**

The Columbus MSA and Franklin County are served by 15 hospitals and three nationally recognized medical research facilities, including The Ohio State University's Arthur G. James Cancer Center and Research Institute. Major hospitals within the region include Children's Hospital; Columbus Community Hospital; Riverside Methodist Hospital; Grant Medical Center; and Doctors Hospital.

## **Law Enforcement**

Local law enforcement within the Columbus MSA is provided by the respective County Sheriff's Office and individual municipalities. Each of the eight counties comprising the Columbus MSA has a County Sheriff's Office. The Franklin County Sheriff's Office is located in Columbus, and is staffed by a Patrol Division with 100 deputies and officers; an Investigations Division with 30 officers and deputies; a Patrol K-9 Unit with seven officers; a Patrol Division Marine Emergency Rescue Team; and Traffic Bureau. The City of Columbus Department of Public Safety includes the Division of Police, which is the region's largest law enforcement agency with almost 1,800 sworn personnel and over 300 civilian personnel.

## **Fire Protection**

Fire protection and emergency medical services (EMS) are provided by each of the 18 townships, and by most of the 13 municipalities within Franklin County. The City of Columbus Department of Public Safety includes the Division of Fire which has 31 stations, 34 engine companies, and 33 EMS Life Support Transport Units. The City's Division of Fire has mutual aid agreements with adjoining township and municipal fire divisions.

## **Recreation**

The City of Columbus Department of Recreation and Parks oversees the operation and maintenance of over 300 active and passive city parks; 30 neighborhood recreational centers with a variety of programs; 49 neighborhood playgrounds; seven golf courses; indoor/outdoor aquatic facilities; and a variety of seasonal recreational programs for all age groups. The Department of Recreation and Parks also sponsors and participates in a variety of annual festivals, concerts and special events.

The Columbus and Franklin County Metropolitan Park District "Metro Parks" features 14 natural area parks and protects more than 23,000 acres of land and water in the Columbus MSA. Metro Parks is a separate political subdivision of the State of Ohio organized to conserve natural resources and provide natural parks for the enjoyment of the public.

### **4.9.1.5 Environmental Justice**

The following discussion of environmental justice issues has been developed to address two EOs.

#### **Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations.**

On February 11, 1994, President Clinton issued EO 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations. The purpose of this EO is to avoid the disproportionate placement of adverse environmental, economic, social, or health impacts from Federal actions and policies on minority and low-income populations or communities. An element emanating from this order was the creation of an Interagency Federal Working Group on Environmental Justice comprised of the heads of 17 Federal

departments and agencies, including the US Army. Each department or agency is to develop a strategy and implementation plan for addressing environmental justice.

It is Army policy to fully comply with EO 12898 by incorporating environmental justice concerns in decision-making processes supporting Army policies, programs, projects, and activities. In this regard, the Army ensures that it would identify, disclose, and respond to potential adverse social and environmental impacts on minority and/or low-income populations within the area affected by a proposed Army action.

The initial step in the environmental justice analysis process is the identification of minority populations and low income populations that might be affected by implementation of the proposed action or alternatives. For environmental justice considerations, these populations are defined as individuals or groups of individuals, which are subject to an actual or potential health, economic, or environmental threat arising from existing or proposed Federal actions and policies. Low-income, or the poverty threshold, is defined as the aggregate annual mean income for a family of four correlating to \$18,600 in 2003, and \$19,806 in 2005.

As indicated in Table 4.13, according to the 2000 US Census, the percent of the population being minority was 18 % for the Columbus MSA compared to 15 % for the State of Ohio. However, the proportion of minority population was almost 25 % for Franklin County, and 32 % for the City of Columbus. African-American is the dominant minority population in all jurisdictions.

Jurisdiction	Total Population (2000)	Percent Minority Population (2000)	Median Household Income in Dollars (2003)	Persons Below Poverty (2003)	Percent Persons Below Poverty (2003)
Columbus MSA	1,612,694	18.0	\$47,100	171,168	10.6
Franklin County	1,068,978	24.5	\$44,967	129,309	12.0
City of Columbus	711,470	32.1	NA	102,7231	14.81
State of Ohio	11,353,140	15.1	\$43,120	1,196,943	10.7

*Source: US Department of Commerce, US Census Bureau, 2000 US Census; Small Area Income and Poverty Estimates, Michigan Counties, US Census Bureau, 2003.*

1 Reflects 2000 US Census data.  
NA = Information not available at this geographic level.

According to the US Census Bureau estimates, almost 11 % of the population in the Columbus MSA was below the poverty level in 2003, comparable to the statewide poverty rate. Franklin County has the highest poverty rate (12 %)

while Delaware County has the lowest rate (5 %). The poverty rate in the City of Columbus approaches 15 %.

### **Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks**

On April 21, 1997, President Clinton issued EO 13045, Protection of Children from Environmental Health Risks and Safety Risks. This EO recognizes that a growing body of scientific knowledge demonstrates that children may suffer disproportionately from environmental health risks and safety risks. These risks arise because children's bodily systems are not fully developed; because they eat, drink, and breathe more in proportion to their body weight; because their size and weight can diminish protection from standard safety features; and because their behavior patterns can make them more susceptible to accidents. Based on these factors, President Clinton directed each Federal agency to make it a high priority to identify and assess environmental health risks and safety risks that might disproportionately affect children. President Clinton also directed each Federal agency to ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks.

It is Army policy to fully comply with EO 13045 by incorporating these concerns in decision-making processes supporting Army policies, programs, projects, and activities. In this regard, the Army ensures that it would identify, disclose, and respond to potential adverse social and environmental impacts on children within the area affected by a proposed Army action.

## **4.9.2 Consequences**

### **4.9.2.1 Alternative 1, No Action Alternative.**

- **Direct Impacts.** Under this alternative, there would no anticipated changes to the existing socioeconomic baseline conditions within the Fort Hayes ROI. The Fort Hayes Memorial USARC would not close and personnel would not be realigned to DSCC.
- **Indirect Impacts.** No indirect impacts are anticipated under this alternative.

## **4.9.2 Consequences**

### **4.9.2.2 Impacts of Army Realignment, Closure, and Disposal**

#### **4.9.2.2.1 Alternative 2, Early Transfer Disposal**

- **Direct Impacts.** Under this alternative, the Army would be able to dispose of the property in a short time period after closure allowing faster redevelopment and reuse of the property. The reuse of the area would provide economic benefits from the potential employment, wages or business sales of the new property. Additionally, depending upon the type of reuse, the property could be owned by a private individual or company and result in additional local tax income for the City of Columbus.

Realignment of the Reserve personnel to the DSCC could result in some of their reserve duty related expenditures occurring elsewhere within the region, therein negatively impacting individual businesses previously patronized. There would be no indirect impacts on housing, public services, and public tax revenues under this alternative.

Under the early transfer disposal approach, disposal would occur prior to any environmental remediation, should a requirement for any environmental remediation be identified. Presently, there is no evidence of any hazardous material spills or releases on the property that have not been previously controlled or cleaned. However, should the redevelopment of the site require environmental clean up, there would be short-term negligible adverse impacts to employment during the timeframe that remediation activities were being completed.

Following completion of the remediation activities, long-term economic benefits would return as medium intensity reuse of the area returns.

- **Indirect Impacts.** Some local vendors currently providing materials and services to the Fort Hayes Memorial USARC may be negatively impacted upon closure of the facility. Under this alternative, there are no anticipated impacts.

#### 4.9.2.2.2 Alternative 3, Traditional Disposal

- **Direct Impacts.** Under this alternative, the Army would complete environmental clean-up before disposal. Presently, there is no evidence of any hazardous material spills or releases on the property that have not been previously controlled or cleaned. This alternative would create negligible, short-term adverse impacts to socioeconomics. The Army would dispose of the property in a longer period of time delaying redevelopment and use of the property.
- **Indirect Impacts.** There are no known indirect impacts under this alternative.

#### 4.9.2.2.3 Alternative 4, Caretaker Status Prior to Disposal

- **Direct Impacts.** This alternative would occur should the property require any long-term remediation efforts prior to disposal. There would be short-term, negligible impacts from the clean up of the site. Short term economic benefits would be derived from the worker wages, sales, and supplies spent for the remediation. However, this alternative would also create minor adverse impacts. During the site clean up, the city of Columbus losses economic benefits from potential employment, sales, and payment of property taxes from the reuse of the site.
- **Indirect Impacts.** This alternative has no anticipated indirect impacts.

#### 4.9.2.3 Potential Impacts of Community Reuse

##### 4.9.2.3.1 Scenario A, Medium Intensity Reuse

- **Direct Impacts.** The current baseline conditions of the Fort Hayes Memorial USARC reflect an overall medium intensity use based on floor area ratio and

square feet of floor area/employee intensity parameters. Reuse of the property reflecting the current 0.10 floor area ratio would not require any new construction on the site. However, the current floor area ratio of 0.10 could be increased to 0.30 under medium intensity reuse, resulting in a total potential floor area of 141,000 SF. Consequently, reuse development at the high end of this floor area ratio would require approximately 94,000 SF of new construction. This new construction could take the form of expanded or new building footprints, or vertical additions to the existing buildings. Short-term economic benefits would be derived from potential renovation and new construction on the site in the form of construction-related employment; expenditures for construction materials and supplies; construction wages; and business sales.

A floor area ratio of 0.30 could potentially result in a total of 235-352 employees for general space use, and 18-35 employees for warehousing use under medium intensity reuse. Thus, the baseline employment (253 FTE) of Fort Hayes Memorial USARC could be exceeded if reuse occurs as general space use at the high end of the floor area ratio for medium intensity. Therefore, economic benefits in the form of employment, personal income and associated business sales could potentially be slightly greater than those benefits currently incurred by the Fort Hayes Memorial USARC property. However, if employment associated with reuse reflects only a relocation and redistribution of existing employment within the ROI, no additional economic benefits would be derived under this reuse scenario in respect to employment, income, and business sales.

- **Indirect Impacts.** Transfer of the property to a non-public entity by the LRA would result in the property being converted to private ownership. Under private ownership the property would lose its current tax exempt status and, thus, be added to the local tax roll and generate real property tax revenues. The current market appraised valuation of the Fort Hayes Memorial USARC property is \$13.8 million. In addition, potential revenues from corporation franchise tax, tangible personal property tax, and other applicable business taxes would be realized by the City of Columbus upon private development of the site. There would be no impacts on housing, education facilities, and community services under this reuse intensity level.

#### 4.9.2.3.2 Scenario B, Medium-High Intensity Reuse

- **Direct Impacts.** Potential economic benefits would be greater under a medium-high intensity reuse of the Fort Hayes Memorial USARC property. Under this reuse intensity the floor area ratio can range between 0.30-0.70, with employee density ranging from 200-400 SF/employee for general space use and 1,000-4,000 SF/employee for warehousing. Reuse development at the high end of this floor area ratio would require approximately 329,000 SF of total building floor area. Thus, extensive new construction approximating 282,000 SF would be required under a floor area ratio of 0.70.

A floor area ratio of 0.70 could potentially result in a total of 822-1,645 employees for general space use, and 82-330 employees for warehousing use under

medium-high intensity reuse. Thus, potential maximum employment under this scenario could be over six times greater than the baseline employment of Fort Hayes Memorial USARC (253 FTE). Therefore, economic benefits in the form of employment, personal income and associated business sales would potentially be much greater than those benefits incurred under medium intensity reuse. It is anticipated that maximum potential employment under the medium-high intensity reuse could include additional new employment to the area in addition to some relocation and redistribution of existing employment. The addition of new employment would result in greater economic benefits in the form of additional wages, personal income, and business sales.

The Fort Hayes Memorial USARC property is currently zoned C-4 (Regional Scale Commercial) and ARI (Apartment Residential District), with the majority of the property zoned ARI. Properties adjacent to the west, north of I-670, are zoned M (Manufacturing District) with industrial and warehousing uses predominating. Considering the current use of the Fort Hayes Memorial USARC, and current zoning and uses of adjacent properties, it is unlikely that the USARC property would be redeveloped in residential uses. Current Height Districts, or structure height restrictions, for the Fort Hayes Memorial USARC are H-35 and H-60 according to the City of Columbus Zoning Code. These restrictions mean that structures and buildings cannot exceed 35 feet or 60 feet in height, or generally three stories and five stories respectively.

Development under medium-high intensity at the maximum floor area ratio would require approximately 282,000 SF of new construction. Some new construction could occur vertically on the existing buildings if structurally feasible. However, considering height restrictions in addition to potential limitations for vertical expansion of existing buildings, new building footprints would be required to meet the maximum floor area under medium-high intensity reuse.

If the Fort Hayes Memorial USARC site is developed entirely in commercial and office space at a floor area ratio of 0.70, approximately 1,100 parking spaces would be required to comply with the City of Columbus Zoning Code. This amount of parking would require 7.6 acres if developed as surface parking. If developed as warehousing or industrial, only 65 to 155 parking spaces (.4 acre - 1 acre) would be required respectively. However, more building footprint would be required for industrial and warehousing uses because of their predominant single-story construction.

The Economic Impact Forecast System (EIFS) model, developed by the USACE, Construction Engineering Research Laboratory (CERL), was used to assess the impacts of project construction and reuse under the medium-high and high intensity reuse scenarios. The EIFS model projects both the short-term direct and indirect temporary regional economic impacts of project construction, and long-term direct and indirect economic impacts of reuse of the Fort Hayes Memorial USARC.

Using employment and income multipliers developed with a comprehensive regional/local database combined with economic export base techniques, the EIFS model estimates the regional economic impacts with respect to changes in

employment generated, and expenditures directly and indirectly resulting from increased operations. The EIFS model evaluates economic impacts in terms of regional change in business volume, employment and personal income, and expenditures for local and regional services, materials, and supplies. The ROI considered for the EIFS impact assessment is the Columbus MSA. The EIFS employment and income multiplier for the ROI is 4.81.

Table 4.14 shows the annual impacts of construction and reuse respectively under medium-high reuse intensity. These impacts reflect the Fort Hayes Memorial USARC developed at the high end of the medium-high intensity level. The construction period is assumed to be only of one year duration. An estimated construction cost of \$200/SF was used as an input into the EIFS model. The annual impacts of construction on employment, income, and business sales would be short-term and occur only during the period of construction. Additional economic benefits would be incurred from construction of the required infrastructure (e.g. utilities, parking areas) to accommodate the higher intensity development under this scenario.

Long-term direct annual regional economic impacts would occur as a result of the higher intensity of development under this scenario. The actual additional economic impact of reuse under this intensity level would depend upon how much of the employment associated with reuse represented new employment, and not a relocation and redistribution of existing employment within the region. The overall impact on regional employment, income, and business sales would be negligible under this scenario as the Rational Threshold Values (RTVs), or degree of magnitude, for each economic variable are minimal and considerably below the maximum respective RTVs for the region. Appendix D contains the EIFS Reports for the medium-high reuse scenarios.

<b>Table 4.14</b>				
<b>Estimated Annual Economic Impacts, Fort Hayes Memorial USARC: Medium-High Intensity Reuse Scenario</b>				
<b>Variable</b>	<b>Direct Impacts</b>	<b>Indirect Impacts</b>	<b>Total</b>	<b>RTV1</b>
Annual Construction Impacts <sup>2</sup>				
Sales (Business) Volume	\$53,952,000	\$205,557,100	\$259,509,100	0.27%
Income	\$24,800,180	\$35,405,890	\$60,206,070	0.15%
Employment	660	799	1,459	0.14%
Annual Operations Impacts <sup>2</sup>				
Sales (Business) Volume	\$44,766,720	\$170,561,200	\$215,327,920	0.22%
Income	\$55,680,000	\$29,378,070	\$85,058,070	0.21%
Employment	1,566	663	2,229	0.22%
<i>Source: Economic Impact Forecast System, U.S. Army Corps of Engineers, Construction Engineering Research Laboratory (as of January, 2007).</i>				
1 Rational Threshold Value.				
2 2006 Dollars.				

- **Indirect Impacts.** As indicated in Table 4.14 there would also be indirect economic impacts as the result of construction activity and reuse of the property under a higher intensity level. These indirect impacts represent additional employment, income and business sales created as a result of the initial direct impact of these economic variables

Transfer of the property to a non-public entity by the LRA would result in the property being transferred to private ownership. Under private ownership the property would lose its current tax exempt status and, thus, be added to the local tax roll and generate real property tax revenues. In addition, potential revenues from corporation franchise tax, tangible personal property tax, and other applicable business taxes would be incurred by development of the site. There would also be an increase in utility tax revenues under this higher intensity reuse. These impacts on tax revenues would be greater under medium-high intensity because of a greater amount of capital investment as compared to the medium intensity reuse alternative. There would be negligible impacts on housing and education facilities under this reuse scenario.

## 4.10 SOILS

### 4.10.1 Affected Environment

A soil survey of Franklin County was completed in 1976. The soil profile at Fort Hayes Memorial USARC is identified as “urban class”, within the Celina Complex. Construction and industrialization have disturbed the original soil profile on Fort Hayes Memorial USARC, resulting in variable soil conditions. The Celina soils are very deep, moderately well drained with moderately deep to dense till. Permeability is moderately slow above the till and very slow in the dense till. Slopes range from 0-12% (USDA-NRCS, 2006).

### 4.10.2 Consequences

#### 4.10.2.1 Alternative 1, No Action Alternative

- **Direct Impacts.** Under this alternative, current operations and personnel would not be reassigned to DSCC. No impact on water usage would occur.
- **Indirect Impacts.** No indirect impacts are anticipated for this area under this alternative.

#### 4.10.2.2 Impacts of Army Realignment, Closure, and Disposal

##### 4.10.2.2.1 Alternative 2, Early Transfer Disposal

- **Direct Impacts.** Under this alternative, there would be a quicker disposal process resulting in reuse and redevelopment on a shorter timeframe. This disposal process would result in no change in baseline conditions with respect to soils.

Under the early transfer disposal, the Army may transfer ownership to the LRA prior to completion of any environmental clean up. Presently, there is no

evidence of any hazardous material spills or releases on the property that have not been previously controlled or cleaned. However, if there would be a clean up required, there would be negligible short-term impacts to soil resources. The remediation would require testing of soils or excavation of contaminated soils. Soil disturbance and excavation would make the soil more susceptible to erosion.

- **Indirect Impacts.** Indirect impacts to soils are not anticipated under this alternative. However, there could be negligible, short-term impacts if the site requires clean up. Any soil disturbance that makes the soil more susceptible to erosion may increase sediment loads in runoff affecting nearby water resources.

#### 4.10.2.2.2 Alternative 3, Traditional Disposal

- **Direct Impacts.** The impacts under this alternative would be similar to those in Alternative 2; however, the impacts would occur after the Army has disposed of the property.
- **Indirect Impacts.** Under this alternative, the impacts would be similar to those in Alternative 2.

#### 4.10.2.2.3 Alternative 4, Caretaker Status Prior to Disposal

- **Direct Impacts.** Impacts would be similar those under Alternative 2.
- **Indirect Impacts.** Impacts would be similar to those under Alternative 2.

#### 4.10.2.3 Potential Impacts of Community Reuse

##### 4.10.2.3.1 Scenario A, Medium Intensity Reuse

- **Direct Impacts.** Fort Hayes current use is medium intensity with an approximate FAR of 0.1. If the reuse stays at approximately this reuse level, direct impact would remain consistent with baseline levels.

There is the option for the FAR to increase to 0.3 and remain within the Medium Intensity level. The high end of the range for medium-intensity reuse would require the addition of 94,000 SF creating either a larger building footprint or vertical additions to existing buildings. Any new construction or renovation would create potential for increased soil erosion by activities such as grading, vegetative clearing, and excavating. Vehicles and equipment for construction would increase the potential of the site to incur a spill that could affect soil quality.

An Erosion Prevention & Sediment Control Plan (EPSCP) is required under the Ohio EPA's National Pollution Discharge Elimination Permit (NPDES) for all land disturbing activities greater than 1 acre in Franklin County. If construction does occur, BMPs used prior to construction, including barriers, tree protection, and buffer/filter strips would minimize the effects. Recommendations during and following construction include silt fences, sediment traps, temporary cover crops, and other erosion control BMPs to reduce soil erosion at the site. Although BMPs are not 100% effective in preventing sediment run off, the Proposed Action would ensure that the construction contractor complies with established permit

requirements. Even with implementation of controls, short-term negligible soil erosion is anticipated.

- **Indirect Impacts.** The indirect impacts under this scenario would be short-term and negligible. Soil disturbance has a potential to result in erosion and increases in total sediment loads in storm water runoff. If the implementation of this scenario requires any construction or renovation, there would be negligible adverse indirect impacts to local watersheds. However, the use of erosion controls detailed in Rainwater and Development Handbook for Ohio or requirements issued on the County Soil Erosion Control Permit would decrease the indirect impacts to soils and watersheds located near the area of proposed development.

#### 4.10.2.3.2 Scenario B, Medium-High Intensity Reuse

- **Direct Impacts.** The FAR for a medium-high intensity reuse ranges from 0.3 to 0.7. There would be minor direct impacts to soil resources with an FAR of 0.7. Medium-high reuse intensity would require 282,000 SF of new construction. The impacts would be the same as Scenario A; however, there would be a higher impact on resources with more risk soil erosion from the increased quantity of construction activities.
- **Indirect Impacts.** There would be minor indirect impacts to soil resources under this scenario. The impacts would be similar to those under Scenario A, but due to increased construction activities, there would be increased soil erosion and increased potential for impacts to water resources from increased sediment loads in runoff.

### 4.11 TRANSPORTATION

#### 4.11.1 Affected Environment

##### 4.11.1.1 Roadways and Traffic

Fort Hayes is located near the interchange of Interstates 670 and 71. The installation has access to the same transportation network as Columbus including Interstates 670, 270, 70, and 71. State Route 3 (Cleveland Avenue) and major collector (Jack Gibb Boulevard) provide direct access to the installation. Fort Hayes does not have an operating security gate. An 8-ft chain link fence surrounds the site. In 1863, the US Government purchased 70 acres of land in Columbus, Ohio, and Captain J.W. Todd began constructing a railroad spur to the facility. Across from Stanton Street is a graded area that is the past site of a railroad switchyard. Currently, the only rail system remaining in the area is CSX, but the line runs outside the Western edge of the base.

##### 4.11.1.2 Installation Transportation

The area has no roadways, only driveways and asphalt parking lots. The installation has three permanent structures and two parking lots, one for military equipment and one for POVs.

### 4.11.1.3 Public Transportation

Primarily the Port Columbus International Airport serves Fort Hayes, which is located 7 miles north of the installation. The area is also served by two municipal airports, Rickenbacker International Airport and Bolton Field. Amtrak provides passenger rail service in Columbus, and the Central Ohio Transit Authority (COTA) provides bus service along most major roads.

### 4.11.2 Consequences

#### 4.11.2.1 Alternative 1, No Action Alternative

- **Direct Impacts.** Under this alternative, there would be no impact on traffic near Fort Hayes Memorial USARC as the installation would not close and personnel would not be realigned to DSCC.
- **Indirect Impacts.** No indirect impacts are anticipated under this alternative.

#### 4.11.2.2 Impacts of Army Realignment, Closure, and Disposal

##### 4.11.2.2.1 Alternative 2, Early Transfer Disposal

- **Direct Impacts.** Under this alternative, there would be a quicker disposal process resulting in reuse and redevelopment on a shorter timeframe. This disposal process would result in no change in baseline conditions with respect to transportation infrastructure.

This alternative would allow the transfer of property without any environmental clean up by the Army. Currently, there is no evidence of any hazardous material spills or releases on the property that have not been previously controlled or cleaned. However, the unexpected discovery of contaminated soils on site would potentially require the excavation of materials using large construction equipment. The trucks require a larger turning radius and have slower acceleration that may temporarily congest traffic on the roads with direct access to the installation. Consequently, the direct impacts would be short-term and negligible.

- **Indirect Impacts.** There are no anticipated changes to baseline conditions under this alternative.

##### 4.11.2.2.2 Alternative 3, Traditional Disposal

- **Direct Impacts.** The impacts under this alternative would be similar to those in Alternative 2. The main difference would be the Army would clean the property prior to disposal.
- **Indirect Impacts.** There are no anticipated changes to baseline conditions under this alternative.

##### 4.11.2.2.3 Alternative 4, Caretaker Status Prior to Disposal

- **Direct Impacts.** There would be short-term negligible impacts should the army find it necessary to place Fort Hayes in caretaker status for environmental

remediation or clean up for an indefinite period. If remediation does occur, the impacts would be similar to those in Alternative 2.

- **Indirect Impacts.** Under this alternative, there are no anticipated impacts to transportation resources.

#### 4.11.2.3 Potential Impacts of Community Reuse

##### 4.11.2.3.1 Scenario A, Medium Intensity Reuse

- **Direct Impacts.** There would be short-term and long-term impacts under this scenario. The current intensity level of Fort Hayes is an FAR of 0.1 or building capacity of approximately 47,000 SF. To accommodate the high end of medium intensity, an FAR of 0.3, an additional 94,000 SF of construction would be required on the former Fort Hayes site. Construction vehicles normally have slower acceleration rates and a wider turning radius. There would be increased congestion on the roads that give direct access to the installation, State Route 3 and Jack Gibbs Blvd. The effects would be short-term and negligible.
- **Indirect Impacts.** There would be negligible impacts under this scenario. General space reuse at the high end of medium intensity would increase traffic on base by 39% or 99 vehicles. The increased traffic on base would cause negligible impacts to the flow of traffic. The roads that give direct access to the installation would face increased congestion. To accommodate parking for commercial or office use, there would need to be approximately 470-560 parking spaces<sup>1</sup> or 3.2-3.8 acres. Currently, the Fort Hayes property has approximately 5 acres of surface parking. The reuse would have adequate parking even with the increase in POVs resulting in a negligible adverse impact.

There would be negligible beneficial impact to transportation should the reuse be warehousing. The traffic on base would decrease by 86% or 218 vehicles. The decrease would have a negligible beneficial affect on the congestion from the roads that access the installation. The warehouse space would be constructed as a single story building, which requires associated parking of 3.2 acres. The current parking lot covers approximately 5 acres, which provides more space than needed under the medium intensity use for a warehouse or industrial reuse.

##### 4.11.2.3.2 Scenario B, Medium-High Intensity Reuse

- **Direct Impacts.** The impacts with this scenario would be similar to those in scenario A.

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<sup>1</sup> Parking requirements calculated using City of Columbus Code indicating 1 parking space per 250 ft of gross floor area for commercial use, 1 space per 300 SF of office space, and 1 space for each 750-1,500 SF for industrial use.

- **Indirect Impacts.** There would be minor long-term direct impacts from medium-high intensity reuse at the former Fort Hayes property. To accommodate the low end FAR of 0.3, the impacts would be negligible similar to scenario A. The high end of the range for medium-high intensity would require the addition of 282,000 SF of new construction and maximum employment would be 1,645 for general use and 330 for warehouse. The city of Columbus parking requirements are 1 space for each 300 square feet of office space; consequently, 1,645 persons would require 7.6 acres of surface parking. To accommodate the necessary parking, there would need to be an expansion of the current parking. A reuse of general use would increase parking areas that would also increase the amount of impervious surfaces on base. A reduction of impervious surfaces can result in higher velocity runoff, a higher quantity of runoff, and a greater risk of oil and pollution in surface runoff. The changes in runoff can lead to increased sediment loads and pollution in nearby water resources. There would also be impacts the increase of vehicles on site. General office reuse would increase on site vehicle traffic by 1,390 persons and would increase congestion and traffic on and around the property.

A reuse of the property as warehouse with an FAR of 0.7 would increase traffic by 77 vehicles. The increase would increase potential for congestion on the property; however, the impacts would be negligible. The associated parking for the employee change would require approximately 65 to 155 parking spaces (0.4-1 acre). The building SF capacity for the high end of medium-high intensity is 329,000 SF, which would cover approximately 7.5 acres. There would be adequate space for the needed parking.

## 4.12 WATER RESOURCES

### 4.12.1 Affected Environment

#### 4.12.1.1 Surface Water

The elevation of Fort Hayes Memorial USARC is approximately 800 feet above mean sea level. Fort Hayes Memorial USARC does not have any known surface water; however, it is located approximately 2 miles away from the confluence of the Scioto and Olentangy Rivers. Surface water from the site infiltrates into the soil. Water that does not infiltrate moves as sheet flow into the adjacent street or grass-lined swales along the property boundary and eventually ends up in the City of Columbus storm sewer system.

The 2005 Natural Resource Survey indicates that according to the Federal Emergency Management Agency (FEMA), the site is not located within a 100-year floodplain.

#### 4.12.1.2 Groundwater

The hydrogeologic setting is a mixture of glacial deposits. According to the ODNR, the unconsolidated material is a mixture of till with sands and gravels probably containing intermittent sand and gravel streams. The yield from the

unconsolidated aquifers is low, ranging from less than five gallons per minute (gpm) up to 25 gpm.

According to ODNR water well records, a database indicated the presence of 14 private water supply wells within a 0.5 mile radius of the site. The wells were installed in the late 1930s-early 1940s, but most of them were destroyed during construction of the current facility. In the Fort Hayes Environmental Baseline Survey (EBS), a search of public water supply wells was also completed for 0.5 miles around the site. No public water supply wells were found. Fort Hayes does not rely on groundwater or wells since the City of Columbus provides water and sewer services to the property.

#### 4.12.2 Consequences

##### 4.12.2.1 Alternative 1, No Action Alternative

- **Direct Impacts.** Under this alternative, current operations and personnel would not be reassigned to DSCC. No impact on water usage would occur.
- **Indirect Impacts.** No indirect impacts are anticipated for this area under this alternative.

##### 4.12.2.2 Impacts of Army Realignment, Closure, and Disposal

###### 4.12.2.2.1 Alternative 2, Early Transfer Disposal

- **Direct Impacts.** Under this alternative, there would be a quicker disposal process resulting in reuse and redevelopment on a shorter timeframe. This disposal process would result in no change in baseline conditions with respect to water resources.

During the phased realignment period, the water and storm sewer services on the property would be used and maintained. Individual facilities at the USARC would be closed as they become vacant. There would be no anticipated direct impacts to water resources from realignment and closure activities. The transfer of property ownership would occur immediately. No major pre-disposal actions would be needed as part of the closure process. Therefore, no direct impacts to water resources are expected.

This alternative would allow the transfer of property without any environmental clean up by the Army. Currently, there is no evidence of any hazardous material spills or releases on the property that have not been previously controlled or cleaned. However, the unexpected discovery of contaminated soils on site would potentially require the excavation of materials using large construction equipment. Should environmental remediation be required, impacts to surface water and storm water would be anticipated. BMPs would be used to minimize the potential for impacts; however, BMPs are never 100% effective.

Consequently, minor potential impacts to surface water and storm water are anticipated in the unlikely event that environmental remediation is required.

- **Indirect Impacts.** The transfer of property ownership would occur immediately resulting in no indirect impacts to water resources.

#### 4.12.2.2.2 Alternative 3, Traditional Disposal

- **Direct Impacts.** The impacts from this alternative are similar to those discussed in Alternative 2.
- **Indirect Impacts.** The transfer of property ownership would result in no indirect impacts to water resources.

#### 4.12.2.2.3 Alternative 4, Caretaker Status Prior to Disposal

- **Direct Impacts.** There would be no anticipated direct impacts to water resources from realignment and closure activities.

Under the caretaker status alternative, the Army will secure the property after the military mission has ended, to insure public safety and the security of remaining government property and environmental remediation actions. Long-term maintenance would be continued to insure security and prevent degradation. There would be no direct impacts to water resources under this Alternative.

- **Indirect Impacts.** Maintenance would be continued to insure security and prevent degradation. There would be no impact on water resources.

#### 4.12.2.3 Potential Impacts of Community Reuse

##### 4.12.2.3.1 Scenario A, Medium Intensity Reuse

- **Direct Impacts.** The reuse of the property would most likely be similar to the current intensity. However, there is the option to increase to the high end of the range for medium-intensity reuse, which would require the addition of 94,000 SF creating either a larger building footprint or vertical additions to existing buildings. Construction activities could result in a short-term negligible adverse impact on surface water in the area. There is potential for increased soil erosion by construction activities such as grading, vegetative clearing, and excavating. Vehicles and equipment for construction would increase the potential of the site to incur a spill that could affect surface water quality.

Under Scenario A, there would be an increase in impervious surface area, which would increase stormwater runoff and erosion.

An EPSCP is required under the Ohio EPA's NPDES for all land disturbing activities greater than 1 acre in Franklin County. If construction does occur, BMPs used prior to construction, including barriers, tree protection, and buffer/filter strips would minimize the effects. Recommendations during and following construction include silt fences, sediment traps, temporary cover crops, and other erosion control BMPs to reduce soil erosion at the site and the associated impacts on surface water. Although BMPs are not 100 % effective in preventing sediment run off, the Proposed Action would ensure that the construction contractor complies with established permit requirements. Even with implementation of controls, short-term soil erosion is anticipated.

- **Indirect Impacts.** The indirect impacts under this scenario would be short-term and negligible. Renovation and construction activities have the potential to result

in erosion and increases in total sediment loads in storm water runoff. If the implementation of this scenario requires any construction or renovation, there would be minor adverse indirect impacts to local watersheds. However, the use of erosion controls detailed in *Rainwater and Development Handbook for Ohio* or requirements issued on the County Soil Erosion Control Permit would decrease the indirect impacts to watersheds located near the proposed development.

#### 4.12.2.3.2 Scenario B, Medium-High Intensity Reuse

- **Direct Impacts.** There would be minor direct impacts to water resources under this scenario. A medium-high reuse intensity would require 282,000 SF of new construction either as an increased building footprint or vertical addition. The impacts would be similar to Scenario A; however, there would be a higher impact on water resources with higher risk of increased soil erosion from increased construction activities.
- **Indirect Impacts.** There would be minor indirect impacts to water resources under this scenario. The impacts would be similar to those under Scenario A, but due to increased construction activities, there would be increased soil erosion and increased potential for impacts to water resources from increased sediment loads in runoff.

### 4.13 CUMULATIVE EFFECTS SUMMARY

#### 4.13.1 Introduction

The cumulative impact analysis evaluates the incremental effects of implementing any of the alternatives when added to past, present, and reasonably foreseeable future US Army actions at Fort Hayes and the actions of other parties in the surrounding area, where applicable. The cumulative impact analysis has been prepared at a level of detail that is reasonable and appropriate to support an informed decision by the Army in selecting a preferred alternative. The cumulative impact discussion is presented according to each of the implementation alternatives listed.

The key components of the cumulative impact analysis include the following:

- **Cumulative Impact Analysis Area.** The cumulative impact analysis area includes the area that has the potential to be affected by implementation of the proposed action at Fort Hayes. This includes the installation and the area immediately proximate to the installation boundary and varies by resource category being considered:
  - **Aesthetics.** The cumulative impact analysis area for aesthetics includes all areas within the boundaries of the installation and areas proximate to the installation.
  - **Air Quality.** The cumulative impact analysis area for air quality includes all areas within the boundaries of the installation and within the regional air quality region.

- **Biological Resources.** The cumulative impact analysis area for biological resources includes the installation and areas immediately surrounding the installation. The analysis includes fish and wildlife, vegetation resources, wetlands, Federal threatened and endangered species, and other species of concern.
- **Cultural Resources.** The cumulative impact analysis area for cultural resources is defined by the installation boundary.
- **Hazardous and Toxic Substances.** The cumulative impact analysis area for hazardous and toxic materials includes all areas within the installation boundary.
- **Land Use.** The cumulative impact analysis area for land use includes all areas within the installation boundary.
- **Noise.** The cumulative impact analysis area for noise includes the area within the installation boundary and the surrounding community.
- **Socioeconomic Environment.** The cumulative impact analysis area for socioeconomic environment is the ROI. The analysis includes consideration of the regional economy and demographics; Fort Hayes' population and economic impact; Native American and other ethnic concerns; environmental justice; homeless programs, impacts to children and other special programs; and community services (i.e., police protection, fire protection, and emergency services).
- **Soils.** The cumulative impact analysis area for soils, including topography and physiography, is defined by the installation boundary.
- **Transportation.** The cumulative impact analysis area for transportation is defined by the installation boundary and the area immediately proximate to installation boundary.
- **Water Resources.** The cumulative impact analysis area for water resources, including physiography and surface drainage, surface water, surface water quality, groundwater, floodplains, and storm water is defined as the installation boundary.
- **Past and Present Actions.** Past actions are defined as actions within the cumulative analysis area under consideration that occurred before August 2006 (the environmental baseline for this EA). These include past actions at Fort Hayes and past demographic, land use, and development trends in the areas that surround the installation.

In most cases, the characteristics and results of these past and present actions are described in the Affected Environment sections under each of the resource categories covered in this EA. Past and present actions that have been identified and considered in the analysis of cumulative impacts are listed below. These

actions are grouped to indicate those that are anticipated on-post and those that are anticipated off-post.

- **Reasonably Foreseeable Future Actions.** Reasonably foreseeable future actions are mainly limited to those that have been approved and that can be identified and defined with respect to timeframe and location. Reasonably foreseeable future actions that have been identified and considered in the analysis of cumulative impacts, both on-post and off-post are listed below.

#### 4.13.2 Potential Cumulative Impacts

##### 4.13.2.1 Alternative 1, No Action Alternative

Under the Alternative 1, No Action Alternative, it is anticipated that past and present development trends on the installation and the surrounding civilian community would continue. However, for realignment actions directed by the BRAC Commission, it would be noted that for the No Action Alternative, maintenance of current conditions is not feasible, since the BRAC actions are congressionally mandated actions.

##### 4.13.2.2 Implementation Alternatives in Conjunction with the Medium Intensity Reuse Scenario

Cumulative impacts under potential implementation alternatives by resource category are as follows:

- **Aesthetics.** Cumulative minor adverse aesthetic impacts would occur at Fort Hayes. Under the high end of the medium intensity reuse, the reduction of green space would result in a long term impact to the installation's landscape.
- **Air Quality.** Increased traffic emissions from the increase in private and government vehicles and equipment would negligibly increase regional emissions on a short-term and long term basis. There would be a slight increase in the potential for short-term adverse cumulative impacts to air quality associated with the present construction project and associated activities. Increases in fugitive dust from construction projects on- and off-post could combine with particulate matter generated through other previously approved construction projects at the installation and within the surrounding community. These emissions could accumulate with other pollutants from adjacent and regional activities.
- **Biological Resources.** Under implementation of the Proposed Action it is anticipated that there would be long-term negligible adverse cumulative impacts to biological resources. Construction projects occurring on Fort Hayes in combination with surrounding community development projects would result in adverse cumulative impacts to biological resources with the reduction or removal of vegetation.

- **Cultural Resources.** Negligible beneficial cumulative impacts to cultural resources are expected under this alternative. Historic Preservation Covenants, approved by the SHPO and shown in Appendix A, would be added to the real estate transfer deed and would place certain restrictions on the use of the NRHP-listed Building 118. It is anticipated that the new management organization would comply with these covenants and SHPO requirements to maintain the long-term integrity of the NHD and associated cultural resources.
- **Hazardous and Toxic Substances.** With the Proposed Action considered under this alternative, the possibility for spills from construction equipment is increased; thus, this would result in negligible adverse cumulative impacts. Long term cumulative beneficial impacts are anticipated as these materials are removed from the site.
- **Land Use.** The most likely reuse for the buildings and real estate under this scenario would be compatible with the existing surrounding land use. There would be negligible cumulative impacts with respect to land use.
- **Noise.** The continued medium-use intensity within the area is not expected to result in changes to the noise level.
- **Socioeconomics.** Cumulative impacts to socioeconomics are not expected under this alternative as the ROI is the same for outgoing and incoming activities.
- **Soils.** Construction projects occurring on Fort Hayes in combination with surrounding community development projects would result in negligible adverse cumulative impacts to soils through soil compaction and erosion.
- **Transportation.** Negligible adverse cumulative impacts to transportation are expected under this alternative from increased POVs.
- **Water Resources.** Negligible adverse cumulative impacts to water resources on the property and surrounding community development projects are expected under this alternative due to construction activities and increase of impervious surfaces.

#### 4.13.2.3 Implementation Alternatives in Conjunction with the Medium-High Intensity Reuse Scenario

Cumulative impacts under potential implementation alternatives by resource category are as follows:

- **Aesthetics and Visual Resources.** It is anticipated that cumulative impacts to aesthetics and visual resources under the medium-high intensity reuse would be the same as those of medium intensity.
- **Air Quality.** It is anticipated that cumulative impacts to air quality under the medium-high intensity reuse would be the same as those of medium intensity.
- **Biological Resources.** It is anticipated that cumulative impacts to biological resources under the medium-high intensity reuse would be the same as those of medium intensity.
- **Cultural Resources.** It is anticipated that cumulative impacts to cultural resources under the medium-high intensity reuse would be the same as those of medium intensity.
- **Hazardous and Toxic Substances.** It is anticipated that cumulative impacts to hazardous and toxic substances under the medium-high intensity reuse would be the same as those of medium intensity.
- **Land Use.** The most likely reuse for the buildings and real estate under this scenario would be compatible with all but one surrounding land use. There would be minor adverse cumulative impacts with respect to land use.
- **Noise.** Increases in personnel due to current and proposed actions would increase traffic noise. While increased noise levels are long-term, these impacts would be negligible.
- **Socioeconomics.** It is anticipated that cumulative socioeconomic impacts under Alternative 3 would be the same as those associated with Alternative 2.
- **Soils.** There would be more construction projects with medium-high intensity reuse occurring on Fort Hayes in surrounding community development projects. This would result in minor adverse cumulative impacts to soils through soil compaction and erosion.
- **Transportation.** Minor adverse cumulative impacts to transportation are expected under this alternative from increased POVs and increased parking area.
- **Water Resources.** Minor adverse cumulative impacts to water resources on the property and surrounding community development projects are expected under this alternative due to more substantial construction activities and increase of impervious surfaces.

## 4.14 MITIGATION SUMMARY

As discussed in Sections 4.2 through 4.13 above, no significant adverse or significant beneficial impacts have been identified or are anticipated as a result of implementing any of the Proposed Action alternatives or the No Action Alternative. Consequently, no mitigation measures are required to reduce impacts to non-significant levels as part of this EA.

In accordance with definitions provided in 40 CFR 1508.20 (a–e) and 32 CFR Part 651.13, measures can be taken to diminish adverse impacts in the following ways:

- Avoiding the impact altogether by not taking a certain action or parts of an action;
- Minimizing impacts by limiting the degree or magnitude of the action and its implementation;
- Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and
- Compensating for the impact by replacing or providing substitute resources or environments.

In association with the Proposed Action, the Army has identified a number of BMPs that would be implemented with the proposed construction activities, regardless of the alternative selected. These measures are designed to avoid, rectify, or reduce adverse impacts. Fort Hayes would work with governmental agencies to comply with the respective regulations and avoid adverse impacts wherever possible. Where feasible, adverse impacts would be lessened through coordination with appropriate agencies.

For those adverse impacts that cannot be avoided, the BMPs have been developed to include features designed to: protect, maintain, restore, or enhance environmental conditions. These BMPs are summarized in Table 4-15.

Table 4.15 Best Management Practice Summary for Implementation of BRAC Recommendations at Fort Hayes.																						
Resource Category																						
Best Management Practice	Aesthetics and Visual Resources		Air Quality		Biological Resources		Cultural Resources		Hazardous and Toxic Substances		Land Use		Noise		Socio-economics		Soils		Transportation		Water Resources	
	D	I	D	I	D	I	D	I	D	I	D	I	D	I	D	I	D	I	D	I	D	I
Silt fences																		●				●
Diversion ditches																		●				●
Re-seeding and re-establishment of vegetation	●	●																●				●
Use of a variety of landscape plantings to enhance habitat for small animals					●	●																
Use of surface water and sediment retention basins																						●
Use of erosion and sediment control structures																		●				●
Preparation of a Sediment and Erosion Plan Approved by Fort Hayes and the State of Ohio																		●	●		●	●
Maintaining areas clean of pollutants									●	●									●			●
Preventative maintenance, e.g. drip pans, changing auto fluids in designated areas									●	●									●			●
Retention of vegetation			●	●	●	●													●			
Dust suppression			●	●																		
Contain and control solid wastes generated from hazardous substances used in renovation and construction activities									●	●												

<b>Table 4.15 Best Management Practice Summary for Implementation of BRAC Recommendations at Fort Hayes.</b>																						
<b>Resource Category</b>																						
<b>Best Management Practice</b>	<b>Aesthetics and Visual Resources</b>		<b>Air Quality</b>		<b>Biological Resources</b>		<b>Cultural Resources</b>		<b>Hazardous and Toxic Substances</b>		<b>Land Use</b>		<b>Noise</b>		<b>Socio-economics</b>		<b>Soils</b>		<b>Transportation</b>		<b>Water Resources</b>	
	D	I	D	I	D	I	D	I	D	I	D	I	D	I	D	I	D	I	D	I	D	I
Use Spill Prevention Control and Countermeasures Plan in the event of releases to the environment of POLs, hazardous materials, or other pollutants					●	●			●	●							●	●			●	●
If asbestos containing materials are found in buildings being renovated, they would be abated in accordance with Army, Federal, and State of Ohio standards									●	●												
Barriers and "no trespassing" signs would be placed around construction areas to reduce the potential for injuries															●	●						
All required Clean Water Act Section 404(b) (1) permits would be acquired.					●	●															●	●
Section 401(a) water quality certification would be acquired in conjunction with a Section 404 permit.					●	●															●	●
Oil and grit filters would be used.					●	●															●	●
Infiltration Trenches would be constructed					●	●															●	●

<b>Table 4.15                      Best Management Practice Summary for Implementation of BRAC Recommendations at Fort Hayes.</b>																						
Resource Category																						
Best Management Practice	Aesthetics and Visual Resources		Air Quality		Biological Resources		Cultural Resources		Hazardous and Toxic Substances		Land Use		Noise		Socio-economics		Soils		Transportation		Water Resources	
	D	I	D	I	D	I	D	I	D	I	D	I	D	I	D	I	D	I	D	I	D	I
Any new entity would coordinate with the State of Ohio SHPO on what uses of the guardhouse would be compliant with the NHPA and on appropriate maintenance of the facility in accordance with the Historic Preservation Covenants.							●	●														
<i>D – Direct impact lessened</i> <i>I – Indirect impact lessened</i> Source: Parsons, 2006																						

## **4.15 CONCLUSIONS, FINDINGS, AND RECOMMENDATIONS**

As analyzed and discussed in the EA, direct, indirect, and cumulative impacts of the each of the Implementation Alternatives and the No Action Alternative have been considered and no significant impacts (either beneficial or adverse) have been identified. Therefore, issuance of a FNSI is warranted, and preparation of an EIS is not required. Table 4-16 provides a summary of the impacts identified in this analysis.

Therefore, any of the alternatives considered, could be implemented. However, the No Action Alternative would not support Congressional requirements under the BRAC law (Public Laws 101-510 and 107-107); consequently, it has not been selected for implementation.

Alternative 2 appears to offers the greatest flexibility in implementation and the best mix of future development in support of the City of Columbus, Ohio and the Army.

<b>Table 4.16 Summary of Environmental Consequences at Fort Hayes</b>								
Resource Category		Alternative 1	Alternative 2	Alternative 3	Alternative 4	Scenario A	Scenario B	Discussion
Aesthetics and Visual Resources	Direct Impacts				●	●	◐	<p>Maintenance standards and guidelines for the Fort Hayes Memorial USARC would comply with NRHP guidelines for maintenance and management of historic buildings; nevertheless, long-term caretaker status creates potential for a decrease in the frequency of mowing, weeding, and visual maintenance that may have a short-term impact on aesthetic resources.</p> <p>There would be short-term negligible adverse impacts on aesthetics during renovation and/or construction activities.</p> <p>The reduction of green space would result in a long-term minor adverse impact to the visual character of the installation's landscape.</p>
	Indirect Impacts				●	●	◐	
	Cumulative Impacts				●	●	◐	
Air Quality	Direct Impacts				+	●	●	<p>Should environmental remediation activities be required at the site), the construction and remediation activities could result in short-term adverse impacts on the air quality in the form of dust that might blow off the Fort Hayes site.</p> <p>While undergoing the care taker status the existing buildings would not require heating and cooling for human comfort; consequently emissions associated with these activities would be reduced</p> <p>Renovation of building facilities would generate a short-term negligible adverse impact associated with criteria pollutants. The Proposed Action falls well below the allowable Prevention of Significant Deterioration (PSD) trigger level requiring the analytical provisions. The emissions associated with renovation activities are not expected to exceed 10% or more of the non-attainment area's total emission budget for any criteria pollutant and therefore would not trigger a conformity analysis</p> <p>The proposed action would require a temporary influx of contractor personnel to perform the activities. This would result in a negligible short-term adverse impact due to the influx of contractors' POVs traveling on the installation to perform the work.</p>
	Indirect Impacts		●	●	●		●	
	Cumulative Impacts		●	●	●	●	●	

Table 4.16 Summary of Environmental Consequences at Fort Hayes								
Resource Category		Alternative 1	Alternative 2	Alternative 3	Alternative 4	Scenario A	Scenario B	Discussion
Biological Resources	Direct Impacts				+	●	●	There are no known wetlands, or Federal or state threatened, endangered or SC species or species habitat currently at Fort Hayes Memorial USARC, consequently impacts to these resources are not anticipated.
	Indirect Impacts					●	●	There may be less frequent grass mowing. As the grass would get longer and resemble more of an old field, there would be a negligible increase habitat potential.
	Cumulative Impacts					●	●	Should redevelopment include the construction of new additions to the existing facilities, or the construction of new facilities these activities would result in removal or reduction of vegetation. Negligible increase in soil erosion would potentially affect nearby water resources
Cultural Resources	Direct Impacts					●	◐	Historic covenants will be placed on the historic properties that will be transferred to the new owners; therefore, adverse impacts to the Fort Hayes NHD are not anticipated. There would be negligible short-term adverse impacts on the historic view shed should the Army find it necessary to place Fort Hayes in caretaker status for an indefinite period. The Fort Hayes Memorial USARC would be maintained in accordance with NRHP guidelines for maintenance and management of historic buildings. Maintenance would also continue to insure security and prevent degradation. However, there may be decrease in frequency of mowing, weeding, and visual maintenance that may have a short-term impact on the view shed of the NHD.
	Indirect Impacts		+	+	●	+	+	Implementation of a programmatic agreement concerning the Fort Hayes NHD would likely increase long-term management effort.
	Cumulative Impacts				●	●	●	Additionally, a larger number of new buildings on the site would have a minor impact on the integrity of the NHD and its view shed. There is a negligible potential for adverse impacts to cultural resources from inadvertent damage from construction equipment and renovation activities.

<b>Table 4.16 Summary of Environmental Consequences at Fort Hayes</b>								
Resource Category		Alternative 1	Alternative 2	Alternative 3	Alternative 4	Scenario A	Scenario B	Discussion
Hazardous and Toxic Substances	Direct Impacts		●	●	●		◐	Vehicle and equipment use for renovation or remediation activities would have a short-term minor adverse impact due to an increase in the potential for spills as compared to Alternative 1.  Long-term beneficial impacts are anticipated as these materials are removed from the site.  Should there be a need for any renovation, the anticipated activity would be minimal resulting in a negligible short-term adverse impact.  Due to the increased potential in building renovations for Scenario B, there would be a greater likelihood of these activities occurring compared to Scenario A.
	Indirect Impacts							
	Cumulative Impacts		●	●	●	●	◐	
Land Use	Direct Impacts					●	● ◐	Development proposed under the medium intensity reuse is generally compatible with existing surrounding land uses (high school, administration, training, and light industrial), thereby resulting in a negligible impact with respect to land use.  Development proposed under medium high intensity reuse is incompatible with the high school land use located north and northwest of the subject property, hence, creating a minor adverse impact.  Horizontal increases in land use could demand green/open space consumption on the property, thereby causing negligible adverse impacts.

Table 4.16 Summary of Environmental Consequences at Fort Hayes								
Resource Category		Alternative 1	Alternative 2	Alternative 3	Alternative 4	Scenario A	Scenario B	Discussion
	Indirect Impacts					●	●	
	Cumulative Impacts					●	●	
Noise	Direct Impacts						◐	Minor short-term adverse impacts would occur at Fort Hayes due to increased noise levels associated with the increased activity at the site. Short-term impacts would be expected due to construction and renovation activity.
	Indirect Impacts							
	Cumulative Impacts							
Socio-economics	Direct Impacts		+	●	●	+	+	Following completion of the remediation activities, long-term economic benefits would return as medium intensity use of the area returns. There would be short-term adverse negligible impacts because the army would dispose of the property in a longer period of time delaying reuse. Economic benefits in the form of employment, personal income, and associated business sales could potentially be slightly greater than those currently at Fort Hayes. The property would be added to the local tax roll and generate property tax revenue.
	Indirect Impacts					+	+	
	Cumulative Impacts					+	+	

Table 4.16 Summary of Environmental Consequences at Fort Hayes								
Resource Category		Alternative 1	Alternative 2	Alternative 3	Alternative 4	Scenario A	Scenario B	Discussion
Soils	Direct Impacts				●	●	◐	<p>Any new construction or renovation would create potential for increased soil erosion by activities such as grading, vegetative clearing, and excavating. Vehicles and equipment for construction would increase the potential of the site to incur a spill that could affect soil quality.</p>
	Indirect Impacts				●	●	◐	
	Cumulative Impacts				●	●	●	
Transportation	Direct Impacts				●	●	●◐	<p>Large construction equipment and trucks require a larger turning radius and have slower acceleration that may temporarily congest traffic on the roads with direct access to the installation. There would be minor long-term direct impacts from medium-high intensity reuse at the former Fort Hayes property</p> <p>General space reuse at the higher end of medium intensity would increase traffic on base by 39% or 99 vehicles. The increased traffic on base would cause negligible impacts to the flow of traffic.</p> <p>Should the reuse be warehousing, the traffic on base would decrease by 86% or 218 vehicles, which would have a negligible beneficial affect on the congestion from the roads that access the installation.</p> <p>An increase of impervious surfaces can result in higher velocity or runoff, a high amount of runoff, and a greater risk of oil and pollution in surface runoff.</p>

Table 4.16 Summary of Environmental Consequences at Fort Hayes								
Resource Category		Alternative 1	Alternative 2	Alternative 3	Alternative 4	Scenario A	Scenario B	Discussion
	Indirect Impacts						● ◐	
	Cumulative Impacts				●	●	◐	
Water Resources	Direct Impacts		◐	◐		●	◐	Should environmental remediation be required, impacts to surface water and storm water would be anticipated. Construction activities could result in a short-term negligible adverse impact on surface water in the area. Renovation and construction activities have the potential to result in erosion and increases in total sediment loads in storm water runoff.
	Indirect Impacts					●	◐	
	Cumulative Impacts		◐	◐		●	◐	
<p>◐ = Moderate Adverse Impact                      ◑ = Minor Adverse Impact                      ● = Negligible Adverse Impact                      ○ = No Impact                      ⊕ = Negligible Beneficial Impact                      ◐ = Minor Beneficial Impact                      ◑ = Moderate Beneficial Impact</p>								
Source: Parsons, 2006								

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## SECTION 5 ACRONYMS

<b>A</b>		CO	Carbon monoxide
ACM	Asbestos Containing Material	COTA	Central Ohio Transit Authority
ADNL	A-Weighted Day-Night Level		
AHPA	Archaeological and Historic Preservation Act of 1974	<b>D</b>	
AMSA	Area Maintenance Support Activity	DAIM-BD	Department of the Army's Assistant Chief of Staff for Installation Management–Building Development
APE	Area of Potential Effect	dB	Decibel
AR	Army Regulation	dBA	Decibel A-Weighted Noise Levels
ARCOM	Army Reserve Command	dBC	Decibel C-Weighted Noise Levels
ARPA	Archaeological Resources Protection Act	DEQ	Department of Environmental Quality
<b>B</b>		DNL	Day-Night Average Sound Level
BLS	Bureau of Labor Statistics	DoD	Department of Defense
BMP	Best Management Practice	DSCC	Defense Supply Center Columbus
BRAC	Base Closure and Realignment	DOT	Department of Transportation
<b>C</b>		<b>E</b>	
CDNL	C-Weighted Day-Night Level	EA	Environmental Assessment
CEQ	Council on Environmental Quality	EBS	Environmental Baseline Survey
CERL	Construction, Engineering, Research Laboratory	ECOP	Environmental Condition of Property
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	EDC	Economic Development Conveyance
CFR	Code of Federal Regulations	EIFS	Economic Impact Forecast System
		EIS	Environmental Impact Statement

EMS	Emergency Medical Services	N	
EO	Executive Order	NAAQS	National Ambient Air Quality Standards
EPSCP	Erosion Prevention and Sediment Control Plan	NEPA	National Environmental Policy Act
F		NHD	National Historic District
FEMA	Federal Emergency Management Agency	NHPA	National Historic Preservation Act
FNSI	Finding of No Significant Impact	NO <sub>2</sub>	Nitrogen dioxide
FOSL	Finding of Suitability to Lease	NO <sub>x</sub>	Nitrogen Oxide(s)
FY	Fiscal Year	NPDES	National Pollutant Discharge Elimination System
G		NRHP	National Register of Historic Places
GIS	Geographic Information Systems	NZ	Noise Zones
gpm	gallons per minute	O	
H		ODNR	Ohio Department of Natural Resources
I		OEPA	Ohio Environmental Protection Agency
J		OMS	Organizational Maintenance Shop
K		O <sub>3</sub>	Ozone
L		P	
LBP	Lead Based Paint	Pb	Lead
LRA	Local Redevelopment Authority	PCBs	Polychlorinated biphenyls
M		POLs	Petroleum, Oils, and Lubricants
MEP	Military Equipment Parking	POV	Privately Owned Vehicles
MLS	Multiple Listing Service	PM <sub>2.5</sub>	particulate matter equal to or less than 2.5 microns in size
MSA	Metropolitan Statistical Area	PM <sub>10</sub>	particulate matter equal to or less than 10 microns in size
		PSD	Prevention of Significant Deterioration

Q		USACE	United States Army Corps of Engineers
R		USARC	United States Army Reserve Center
RCRA	Resource Conservation and Recovery Act	USC	United States Code
ROI	Region of Influence	USEPA	United States Environmental Protection Agency
RSC	Regional Support Center		
RTVs	Rational Threshold Values	USFWS	United States Fish and Wildlife Service
S		UST	Underground Storage Tanks
SC	Special Concern		
SF	square foot or square feet		
SHPO	State Historic Preservation Officer	V	
SIP	State Implementation Plan	VOCs	Volatile Organic Compounds
SO <sub>2</sub>	Sulfur dioxide		
SPP	Spill Prevention Plan	W	
T		X	
tpy	tons per year		
TSCA	Toxic Substance Control Act	Y	
U		Z	
US	United States		

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## SECTION 6 REFERENCES

References that were used during the development of this EA include the following:

Reference	Description
BEA, 2004	US Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System, 2004. Total Full Time and Part-Time Employment by Industry by Place of Work, Fort Hayes USARC Region of Influence, 2004 (North American Industrial Classification System).
BLS, 2005	US Department of Labor, Bureau of Labor Statistics, 2005. Annual Civilian Labor Force and Unemployment Rate, Fort Hayes USARC Region of Influence.
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- Gardner, 2005 Gardner, Jeffrey W., 2005. *Phase I Archaeological Survey of Two Tracts (OH013/39920 and OH111/39220) at Fort Hayes, Columbus (Mifflin Township), Franklin County, Ohio*. Report prepared for the US Army Corps of Engineers, Mobile District and the US Army Reserve 88<sup>th</sup> Regional Readiness Command, Fort Snelling, MN.
- Gardner, 2006 Gardner, Jeffrey W., 2006. *Phase II Archaeological Survey of Two East Lawn Triangle and Building 103 Loci Archaeological Site 33FR2304 Fort Hayes, Franklin County, Ohio*. Report prepared for the US Army Corps of Engineers, Mobile District and the US Army Reserve 88<sup>th</sup> Regional Readiness Command, Fort Snelling, MN.
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- US Department of the Interior, 2000 US Department of the Interior, 2000. *Condition Assessment, Stabilization and Layaway Plan, Fort Hayes National Historic District, Columbus, Ohio*. Prepared for the United States Army Reserve 88<sup>th</sup> Regional Support Command (RSC) Directorate of Engineering, Environmental Division Fort Snelling, MN. Prepared by the US Department of the Interior, National Park Service, Historic Preservation Training Center, Frederick, MD.
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[http://www.fws.gov/midwest/reynoldsburg/endangered/pdf/2006\\_species\\_list.pdf](http://www.fws.gov/midwest/reynoldsburg/endangered/pdf/2006_species_list.pdf)

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## SECTION 7

# LIST OF PREPARERS

Personnel involved in the development of this EA include the following:

Name	Education and Experience	Primary Responsibilities
Darrel B. Sisk, Jr.	B.E.D. Environmental Design; M.S. Architectural Engineering; 17 years experience in base civil engineering, military planning and environmental planning and impact assessment.	Project Manager/Senior Project Planner; data collection and key participant in description of proposed action, alternatives formulation, and related environmental analyses.
Donald Beisel	B.S. Geography; M.A. Geography; 28 years of experience in community/urban planning, environmental planning, and socioeconomic studies.	Senior Project Planner; data collection and preparation of socioeconomic analysis and related text sections.
Doug Bice	A.S. Environmental Studies; B.S. Occupational Safety; M.S. Environmental/Occupational Health. 20 years experience in environmental and occupational health.	Senior Planner; data collection, analysis and key participant in preparation of EA text and supporting sections.
Amanda Bowman	B.A. Geography; M.S. Environmental Science and Policy. 5 years experience in conservation design, environmental planning, and socioeconomic analysis.	Environmental Scientist, data collection, analysis, and key participant in preparation of EA text and supporting sections.

<b>Name</b>	<b>Education and Experience</b>	<b>Primary Responsibilities</b>
Luke Eggering	B.S., Fish and Wildlife Management; M.S., Biology; 15 years experience in wetland management; wildlife, fisheries and endangered species management; 12 years experience preparation of NEPA/environmental documents.	Project Scientist, technical review, editing, and quality assurance of EA.
Virginia Flynn	B.S. Horticulture; M.S. Plant Ecology; 10 years experience in biological surveys, natural resource management, ecological restoration, and environmental impact assessment.	Senior Environmental Scientist; data collection, analysis and key participant in preparation of the environmental assessment text and supporting sections.
Lee Gorday	B.A., Geology; M.A. Geology; 18 years of experience in hydrogeologic systems and groundwater contamination.	Senior Hydrogeologist; data collection and preparation of groundwater, geology, and soils elements.
Richard Hall	B.S. Environmental Biology, M.S. Zoology, 24 years of experience in environmental assessment and impact studies, biological community investigations and ecosystem restoration.	Principal Environmental Scientist, technical review, editing, and quality assurance of PEA.
Randy Norris	B.S. Plant and Soil Science; Master of Urban Planning/Environmental Planning; 16 years experience in environmental impact assessment, environmental management and planning.	Senior Environmental Scientist; data collection, alternatives development, and natural resources impact analysis.

<b>Name</b>	<b>Education and Experience</b>	<b>Primary Responsibilities</b>
Rebecca Porath	B.S. Fisheries and Wildlife Management; M.S. Zoology; 9 years experience in plant and wildlife surveys and management, ecological restoration, and environmental impact assessment.	Environmental Scientist; data collection, analysis and key participant in preparation of EA text and supporting sections relating to biological resources.
Tom Shillito	B.S. Aerospace Engineering; M.C.E Environmental Engineering. 16 years experience in environmental science, regulatory compliance of DoD facilities.	Environmental Scientist, analysis and key participant in preparation of EA text and supporting sections.

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## **SECTION 8 DISTRIBUTION LIST**

Persons and Organizations Contacted as part of the initial coordination effort:

US Fish and Wildlife Service  
Ecological Services Center  
6950 Americana Parkway, Suite H  
Reynoldsburg, Ohio 43068

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Director  
Ohio Department of Natural Resources  
2045 Morse Road  
Columbus, OH 43229

Mr. Gordon Proctor  
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State Historic Preservation Officer  
Ohio Historic Preservation Office  
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## **SECTION 9 PERSONS CONSULTED**

All information solicited and collected in preparation of this document was done so with Army installation personnel.

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# APPENDIX A

## AGENCY COORDINATION

As noted in Section 1.4, public participation includes public comment on the Draft Environmental Assessment. All agencies and organizations having a potential interest in the Proposed Action are provided the opportunity to participate in the decision making process.

Pages A-2 to A-13 of Appendix A include a sample of the public notification and request letter that was submitted to nine applicable organizations and agencies during the project scoping phase; the contact information associated with these organizations and agencies; and copies of response letters that were received from these agencies .

Appendix A also includes, on pages A-14 to A-29, copies of the consultation letters forwarded to Native American Tribes associated with the project. A copy of the letter used by the Army to forward the proposed Building 118 Historic Preservation Covenants to the SHPO, a copy of the proposed Historic Preservation Covenants, and a response letter from the Ohio SHPO can be found on pages A-30 to A-35.

## Date To Be Determined

Re: Request for Information and Notification of the Preparation of an *Environmental Assessment for Base Realignment and Closure at Fort Hayes USARC, OH*

Parsons Project No. 745367

Dear \_\_\_\_\_,

Parsons Infrastructure and Technology, Inc. (Parsons) is currently under contract with the Mobile District, U.S. Army Corps of Engineers to assist in preparing an Environmental Assessment (EA) associated with Base Realignment and Closure (BRAC) actions. As identified by the BRAC legislation, the Proposed Action would close Fort Hayes US Army Reserve Center in Columbus, Ohio, and relocate units to a new Armed Forces Reserve Center on Defense Supply Center in Columbus, Ohio. This EA will provide an analysis of the potential direct and indirect impacts of these project elements; as well as review the potential cumulative impacts of the Proposed Action.

We are informing you of the study effort and requesting:

- any information your agency may have on file that might be pertinent to our analysis,
- areas of interest that you feel should be considered in the EA process, and
- additional persons, organizations, or agencies that we should consider contacting.

A list of the other persons and organizations that are being contacted as part of this initial coordination effort is attached to this letter.

The purpose of this EA is to identify and evaluate the environmental impacts (including physical, biological, historical, archaeological, and socioeconomic) associated with potential activities at Fort Hayes. As part of the EA, we identify and describe the proposed action, alternatives to these actions, and related environmental effects as required by the National Environmental Policy Act of 1969, the President's Council on Environmental Quality, and 32 Code of Federal Regulations, Part 651.

The EA reviews the potential impacts of a No Action Alternative and several potential implementation alternatives. The alternatives identified to date include:

Alternative 1 - No Action Alternative.

The No Action Alternative would be to continue the missions at BRAC-affected installations as they were being performed in November, 2005. Because the law mandates closure and realignment of installations, this alternative would not be feasible.

## Alternative 2 – Early Transfer Disposal

This alternative would involve the relocation of the 42 permanent party military personnel and 790 part-time Reserve personnel, and related missions and equipment, from the Fort Hayes USARC to the DSCC. The realignment would occur on a phased schedule. This schedule would be dependent upon the availability of facilities to support the mission requirements at DSCC. The implementation schedule for this Proposed Action must be completed within the 6-year time limitation as established in the BRAC law.

Following the completion of the phased realignment of personnel to DSCC, the Fort Hayes USARC would be closed. Individual facilities at the USARC would be closed as they become vacated by personnel relocating to DSCC.

Disposal of excess property is the Army's primary action associated with BRAC. In order to ensure protection of the existing Fort Hayes properties and the long-term health of personnel using the Fort Hayes facilities, this disposal would be an encumbered disposal that includes appropriate environmental protection features.

In order to uphold its integrity as a historic property, proposed alterations to the guardhouse during reuse must be coordinated through the SHPO. A programmatic agreement between the SHPO and developer will be required regarding operation and maintenance of the building and the associated surrounding area.

## Alternative 3 – Traditional Disposal

Under this alternative, the Army would realign personnel and close the Fort Hayes USARC in the same methods discussed under Alternative 2. The property at the Fort Hayes USARC would be disposed of with encumbrances in order to protect the historic Guard House, and to protect future users from potential LBP, ACM, and PCB issues. This element of this alternative would be identical to Alternative 2 above.

Under the BRAC law, the Army is required to close all military installations recommended for closure by the BRAC Commission. The Army is also given broad authority to transfer the property to other government agencies or to dispose of it to non-government organizations. Under this alternative, the Army will transfer or dispose of property once environmental remediation and other environmental clearance is complete for individual parcels of the installation.

## Alternative 4 – Caretaker Status Prior to Disposal

Under this alternative, the Army would also realign personnel and close the Fort Hayes USARC in the same methods discussed under Alternative 2. The property at the Fort Hayes USARC would be disposed of with encumbrances in order to protect the historic Guard House, and to protect future users from potential LBP, ACM, and PCB issues. This element of this alternative would be identical to Alternative 2 above.

Under the caretaker status alternative, the Army will secure the property after the military mission has ended, to insure public safety and the security of remaining government property and BRAC NEPA Guidelines environmental remediation actions. Under the BRAC law, the Army must initiate closure of installations within 2 years after the President submits the BRAC report to Congress. Because of environmental remediation and other requirements, there may be a period between the end of the major military presence and the transfer of the property to new owners. It is during this period that the Army must maintain the property in caretaker status. This condition should not be a permanent one because Army policy is to dispose of the closed installation.

Additionally, due to the transfer of property from Fort Hayes USARC to community ownership and use, additional scenarios were also considered as part of this EA.

The Army decision maker does not have direct control over the development intensities the Community will use for the Fort Hayes USARC. Therefore, the Army has evaluated the potential impacts associated with each of these intensities but will not reach a decision concerning which of these alternatives the community will choose to implement. Additionally, the Army expresses no preference with respect to reuse scenarios because decisions implementing reuse will be made by other entities.

## Scenario A - Medium Intensity Reuse

Reuse development of excess property is the Army's secondary action associated with BRAC. As currently planned, the Fort Hayes USARC property would be transferred to a new owner immediately following closure. This subsequent reuse could take several forms and reflect various uses and use intensities.

Employment under medium intensity reuse could range between 78-352 employees for general space use, and between 6-35 employees for warehousing use depending upon the respective floor area ratios. A higher floor area ratio would generally result in a greater number of potential employees. The higher level of potential employment for general space use reflects more intense uses, such as office space and labor-intensive industries. General space employment is based on 401-600 SF per employee, and warehousing employment is based on 4,000-8,000 SF per employee under the medium intensity reuse scenario.

The existing baseline conditions reflect an overall medium intensity development of the Fort Hayes USARC site. This current intensity level reflects a medium/medium-low intensity floor area ratio of 0.10 (47,037 SF/ 469,577 SF), but a high employee intensity with less than 200 SF of floor space per employee (47,037 SF/253 FTE employees).

## Scenario B, Medium-High Intensity Reuse

Under the medium-high intensity reuse scenario the total potential SF of building area on the Fort Hayes USARC property could range between 141,000-329,000 SF based on a floor area ratio ranging between 0.30-0.70. This potential amount of building area would reflect substantial new construction on the site.

Employment under medium-high intensity reuse could range between 352-1,645 employees for general space use, and between 35-330 employees for warehousing use depending upon the respective floor area ratios. A higher floor area ratio would result in a greater number of potential employees. General space employment under the medium-high intensity scenario reflects a range of 401–600 SF per employee, while warehousing employment is based on 1,000-4,000 SF per employee. The higher level of potential employment for general space use reflects more intense uses, such as office space and labor-intensive industries.

The approximate areas potentially impacted by the Proposed Action are illustrated on the attached map. Should you, or someone on your staff, have any questions concerning this request; please contact us for clarification or discussion. Your assistance and effort in this matter are greatly appreciated.

Sincerely,  
PARSONS

Darrel Sisk, Jr.  
Project Manager

Enclosure

## Persons and Organizations to be contacted as part of the public participation effort:

US Fish and Wildlife Service  
Ecological Services Center  
6950 Americana Parkway, Suite H  
Reynoldsburg, Ohio 43068

Mr. Sam Speck  
Director  
Ohio Department of Natural Resources  
2045 Morse Road  
Columbus, OH 43229

Mr. Gordon Proctor  
Director  
Ohio Department of Transportation  
1980 W. Broad St.  
Columbus, OH 43223

Mr. David Hanselmann  
Chief  
Division of Soil and Water Conservation  
2045 Morse Road  
Building B-3  
Columbus, OH 43229

Mr. Terry J. Cosby  
State Conservationist  
Natural Resources Conservation Service  
3900 Campus Drive  
Suite A  
Lima, OH 45804

Mr. Mark Barbash  
Director of Development  
City of Columbus  
50 W. Gay Street  
Columbus, OH 43215

Mr. Fred L. Dailey  
Director  
Ohio Department of Agriculture  
8995 E. Main Street  
Reynoldsburg, OH 43068

Mr. Steve Gray  
Director  
Ohio Department of Natural Resources – Division of Wildlife  
2045 Morse Road – Building G  
Columbus, OH 43229-6693

Mr. Mark Epstein  
State Historic Preservation Officer  
Ohio Historic Preservation Office  
567 East Hudson Street  
Columbus, OH 43211-1030



## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

Ecological Services  
6950 Americana Parkway, Suite H  
Reynoldsburg, Ohio 43068-4127  
(614) 469-6923 / FAX (614) 469-6919

### Federal Species of Concern in Ohio October 20, 2006

#### IMPORTANT NOTES

1. Please contact the State of Ohio (ODNR Division of Wildlife and ODNR Division of Natural Areas and Preserves) to learn the state status of the species shown below.
2. This is an unofficial list of species of concern to the U.S. Fish and Wildlife Service that occur in Ohio.

(CE) = Currently under evaluation for Federal candidate status  
(PC) = Federal pre-listing conservation plan being developed  
(M) = Active monitoring (recovery, threats, population status, etc.)

#### MAMMALS

Eastern small-footed bat, *Myotis subulatus leibii*  
Alleghany woodrat, *Neotoma floridana magister*  
Rafinesque's (southeastern) big-eared bat, *Plecotus rafinesquii*

#### BIRDS

Appalachian bewick's wren, *Thryomanes bewickii altus*  
Bachman's sparrow, *Aimophila aestivalis*  
Black rail, *Laterallus jamaicensis*  
Black tern, *Chlidonias niger*  
Cerulean warbler (CE), *Dendroica cerulea*  
Common tern, *Sterna hirundo*  
Henslow's sparrow, *Ammodramus henslowii*  
Loggerhead shrike, *Lanius ludovicianus*

Northern goshawk, *Accipiter gentiles*

Peregrine falcon (M), *Falco peregrinus*

## REPTILES/AMPHIBIANS

Blanding's turtle, *Emydoidea blandingii*

Timber rattlesnake (PC), *Crotalus horridus horridus*

False map turtle, *Graptemys pseudogeographica*

Hellbender (CE), *Cryptobranchus alleganiensis*

Kirtland's snake, *Clonophis kirtlandii*

Shorthead garter snake, *Thamnophis brachystoma*

## FISH

Crystal darter (CE), *Crystallaria asprella*

Eastern sand darter (CE), *Etheostoma pellucidum*

Spotted darter (CE), *Etheostoma maculatum*

Longhead darter (CE), *Percina macrocephala*

Blue sucker, *Cycleptus elongatus*

Greater redhorse, *Moxostoma valenciennesi*

Lake sturgeon, *Acipenser fulvescens*

Paddlefish, *Polydon spathula*

## INVERTEBRATES

### SNAILS

Varicose rocksnail, *Lithasia verrucosa*

## MUSSELS

Elktoe, *Alasmidonta marginata*  
Pink (pyramid) pigtoe, *Pleurobema pyramidatum*  
Purple lilliput, *Toxolasma lividus*  
Rabbitsfoot (CE), *Quadrula cylindrica cylindrica*  
Salamander mussel, *Simpsonaias ambigua*  
Snuffbox (CE), *Epioblasma triquetra*

## INSECTS

Albarufan dagger moth, *Acronicta albaruta*  
Black lordithon rove beetle, *Lordithon niger*  
Cobblestone tiger beetle, *Cicindela marginipennis*  
Diana fritillary, *Speyeria diana*  
Elusive clubtail, *Gomphus notatus*  
Grizzled skipper, *Pyrgus wyandot*  
Hebard's noctuid moth, *Erythroecia hebardei*  
Kramer's cave beetle, *Pseudanophthalmus krameri*  
Laricis tree cricket, *Oecanthus laricis*  
Looper moth, *Euchlaena milnei*  
Ohio cave beetle, *Pseudanophthalmus ohioensis*  
Precious underwing moth, *Catocala pretiosa*  
Regal fritillary, *Speyeria idalia*  
Sixbanded longhorn beetle, *Dryobius sexnotatus*  
Wabash belted skimmer, *Macromia wabashensis*



## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

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(614) 469-6923 / FAX (614) 469-6919

### Federally Endangered, Threatened, Proposed, and Candidate Species in Ohio May 1, 2006

**IMPORTANT NOTE:** These lists reflect data available as of May 2006, and will change as new data become available. For this reason, searches for listed species should not necessarily be limited to the counties noted below. Any decisions in that regard should be made only after calling the USFWS (614/469-6923) for guidance.

- |                |  |
|----------------|--|
| E = Endangered | CH = Critical Habitat designated                   |
| T = Threatened | PC = Pre-listing conservation plan being developed |
| C = Candidate  |  |

<u>Name/Status</u>	<u>Counties of Current, Recent, and Possible Distribution</u>
<b>Indiana Bat</b> (E) <i>Myotis sodalis</i>	All counties in Ohio
<b>Bald Eagle</b> (T) <i>Haliaeetus leucocephalus</i>	The following counties have nesting records:  Allen, Ashtabula, Brown, Coshocton, Crawford, Cuyahoga, Defiance, Delaware, Erie, Geauga, Guernsey, Hancock, Hardin, Harrison, Henry, Highland, Holmes, Huron, Knox, Lake, Licking, Lorain, Lucas, Mahoning, Marion, Mercer, Morgan, Muskingum, Noble, Ottawa, Pickaway, Portage, Putnum, Richland, Ross, Sandusky, Seneca, Stark, Summit, Trumbull, Tuscarawas, Wayne, Wood, Wyandot
<b>Piping Plover</b> (E) <i>Charadrius melodus</i>	Ashtabula, Cuyahoga, Erie (CH), Lake (CH), Lorain, Lucas, Ottawa, Sandusky
<b>Scioto Madtom</b> (E) <i>Noturus trautmani</i>	Franklin, Madison, Pickaway, Union
<b>Purple Cat's Paw Pearly Mussel</b> (E) <i>Epioblasma obliquata obliquata</i>	Coshocton
<b>Northern Riffleshell</b> (E) <i>Epioblasma torulosa rangiana</i>	Franklin, Madison, Pickaway, Union, Williams
<b>Fanshell</b> (E) <i>Cyprogenia stegaria</i>	Coshocton, Meigs, Morgan, Muskingum, Washington

<b>Clubshell</b> (E) <i>Pleurobema clava</i>	Ashtabula, Coshocton, Defiance, Delaware, Fairfield, Franklin, Greene, Hancock, Madison, Pickaway, Trumbull, Tuscarawas, Union, Williams
<b>White Cat's Paw Pearly Mussel</b> (E) <i>Epioblasma obliquata perobliqua</i>	Williams
<b>Pink Mucket Pearly Mussel</b> (E) <i>Lampsilis abrupta</i>	Gallia, Lawrence, Meigs, Morgan, Washington
<b>Rayed Bean</b> (C) <i>Villosa fabalis</i>	Brown, Champaign, Clermont, Coshocton, Defiance, Delaware, Franklin, Hancock, Hardin, Lucas, Madison, Marion, Miami, Morrow, Pickaway, Scioto, Union, Warren, Williams, Wyandot
<b>Sheepnose</b> (C) <i>Plethobasus cyphus</i>	Adams, Athens, Brown, Clermont, Coshocton, Gallia, Hamilton, Lawrence, Meigs, Morgan, Scioto, Washington
<b>American Burying Beetle</b> (E) <i>Nicrophorus americanus</i>	Athens, Hocking, Vinton
<b>Mitchell's Satyr</b> (E) <i>Neonympha m. mitchellii</i>	Portage
<b>Karner Blue Butterfly</b> (E) <i>Lycaeides melissa samuelis</i>	Lucas
<b>Running Buffalo Clover</b> (E) <i>Trifolium stoloniferum</i>	Adams, Brown, Clermont, Hamilton, Lawrence, Scioto, Warren
<b>Lakeside Daisy</b> (T) <i>Hymenoxys herbacea</i>	Erie, Ottawa
<b>Northern Monkshood</b> (T) <i>Aconitum noveboracense</i>	Hocking, Portage, Summit
<b>Eastern Prairie Fringed Orchid</b> (T) <i>Platanthera leucophaea</i>	Clark, Holmes, Lucas, Ottawa, Sandusky, Wayne
<b>Virginia Spiraea</b> (T) <i>Spiraea virginiana</i>	Scioto
<b>Small Whorled Pogonia</b> (T) <i>Isotria medeoloides</i>	Hocking, Scioto
<b>Lake Erie Watersnake</b> (T) <i>Nerodia sipedon insularum</i>	Erie, Ottawa

<b>Copperbelly Watersnake</b> (T) <i>Nerodia erythrogaster neglecta</i>	Defiance, Hardin, Williams
<b>Eastern Massasauga</b> (C) <i>Sistrurus catenatus</i>	Ashtabula, Champaign, Clark, Clinton, Columbiana, Crawford, Defiance, Erie, Fairfield, Fayette, Fulton, Greene, Hardin, Huron, Licking, Logan, Lorain, Lucas, Marion, Medina, Montgomery, Ottawa, Paulding, Portage, Preble, Sandusky, Seneca, Stark, Trumbull, Warren, Wayne, Wyandot
<b>Timber Rattlesnake</b> (PC) <i>Crotalus horridus horridus</i>	Adams, Athens, Hocking, Jackson, Lawrence, Pike, Ross, Scioto, Vinton

The Army completed consultation with all federally listed tribes in the state of Ohio (see list below) in order to further identify culturally affiliated properties that may be affected by the proposed closure. A copy of the memorandums sent to each tribe is provided on the following pages.

Absentee-Shawnee Tribe of Indians of Oklahoma  
Attn: Mr. James Lee Edwards, Jr  
2025 South Gordon Cooper Drive  
Shawnee, OK 74801-9381

Cayuga Nation of Indians  
Attn: Mr. Vernon Isaac  
P.O. Box 11  
Versailles, NY 14168

Hannahville Indian Community, Michigan  
Attn: Mr. Kenneth Meshiguad  
N14911 Hannahville B1 Road  
Wilson, MI 49896-9728

Cherokee Nation of Oklahoma  
Attn: Mr Chadwick Smith  
P.O. Box 948  
Tehlequah, OK 74820

Delaware Nation  
Attn: Mr. Bruce Gonzalez  
P.O. Box 825  
Anadarko, OK 73005

Eastern Band of Cherokee Indians  
Attn: Mr. Leon Jones  
P.O. Box 455  
Cherokee, NC 28719

Eastern Shawnee Tribe of Oklahoma  
Attn Mr. Charles D. Enyart  
P.O. Box 350  
Seneca, MO 64865

Forest County Potawatomi Community of Wisconsin  
Attn: Mr. Harold Frank  
P.O. Box 340  
Crandon, WI 54520

Miami Tribe of Oklahoma  
Attn: Mr. Floyd Leonard  
P.O. Box 1326  
Miami, OK 74355

Ottawa Tribe of Oklahoma  
Attn: Mr. Charles Todd  
P.O. Box 110  
Miami, OK 74355

Seneca Nation of Indians  
Attn: Mr. Cyrus Schindler  
1490 Route 438  
Irving, NY 14081

Seneca-Cayuga Tribe of Oklahoma  
Attn: Mr. LeRoy Howard  
P.O. Box 1283  
Miami, OK 74355

Wyandotte Tribe of Oklahoma  
Attn: Mr. Leaford Bearskin  
P.O. Box 250  
Wyandotte, OK 74370

REPLY TO  
ATTENTION OF:

DEPARTMENT OF THE ARMY  
HEADQUARTERS, 88TH REGIONAL READINESS COMMAND  
506 ROEDER CIRCLE  
FORT SNELLING, MINNESOTA 55111-4009

December 5, 2006

Deputy Chief of Staff Engineer

Absentee-Shawnee Tribe of Indians of Oklahoma  
Attn: Mr. James "Lee" Edwards, Jr.  
2025 South Gordon Cooper Drive  
Shawnee, OK 74801-9381

Dear Governor Edwards:

The United States Army Reserve, 88th Regional Readiness Command (RRC) has determined that that the following facility will be closed pursuant to the 2005 Defense Base Closure and Realignment (BRAC) report:

Ft. Hayes Memorial United States Army Reserve Center (USARC)  
530 Jack Gibbs Blvd., Columbus, Ohio, 43215-1795

Enclosed is a copy of our study of historic structures at the Ft. Hayes Memorial USARC property. [Enclosure 1] This study was carried out pursuant to Section 110(a)(1) of the National Historic Preservation Act. The Reserve Center (Building 300) and maintenance garage (Building 301) were constructed in 1965. In addition, attached is the March 2005 "Ft. Hayes National Historic District, Columbus, Ohio: Condition Assessment, Stabilization, and Layaway Plan Update" which details the existing conditions for Building 118. Building 118, formerly the Ft. Hayes Gate House, was constructed in 1898. [Enclosure 2]

Also, attached is a copy of the Phase II Archaeological Survey that was completed for this site in July 2006. Note that no distinctive contributing elements to the historic district were identified and that no additional archaeological investigations are needed in the tested areas. [Enclosure 3]

Please note that Parcel B (4.5 acres) was officially transferred to the City of Columbus Public Schools in August 2006. Enclosed is the 15 August 2006 quitclaim deed with Historic Preservation Covenants that were used for this transfer. The Covenants start on page 21, Section 28. [Enclosure 4]

We have determined that the area of potential effects (APE) for this undertaking is as shown on the enclosed site plan. It is our determination that this undertaking, the proposed BRAC closure, will not have an adverse effect to the Ft. Hayes National Historic District due to the addition of Historic Preservation Covenants such as the ones used in the attached 15 August 2006 quitclaim for transfer to the City of Columbus Public Schools.

REPLY TO  
ATTENTION OF:

DEPARTMENT OF THE ARMY  
HEADQUARTERS, 88TH REGIONAL READINESS COMMAND  
506 ROEDER CIRCLE  
FORT SNELLING, MINNESOTA 55111-4009

December 5, 2006

Deputy Chief of Staff Engineer

Cayuga Nation of Indians  
Attn: Mr. Vernon Isaac  
P.O. Box 11  
Versailles, NY 14168

Dear Chief Isaac:

The United States Army Reserve, 88th Regional Readiness Command (RRC) has determined that the following facility will be closed pursuant to the 2005 Defense Base Closure and Realignment (BRAC) report:

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HEADQUARTERS, 88TH REGIONAL READINESS COMMAND  
506 ROEDER CIRCLE  
FORT SNELLING, MINNESOTA 55111-4009

December 5, 2006

Deputy Chief of Staff Engineer

Hannahville Indian Community, Michigan  
Attn: Mr. Kenneth Meshiguad  
N14911 Hannahville B 1 Road  
Wilson, MI 49896-9728

Dear Chairperson Meshiguad:

The United States Army Reserve, 88th Regional Readiness Command (RRC) has determined that the following facility will be closed pursuant to the 2005 Defense Base Closure and Realignment (BRAC) report:

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HEADQUARTERS, 88TH REGIONAL READINESS COMMAND  
506 ROEDER CIRCLE  
FORT SNELLING, MINNESOTA 55111-4009

December 5, 2006

Deputy Chief of Staff Engineer

Cherokee Nation of Oklahoma  
Attn: Mr. Chadwick Smith  
P.O. Box 948  
Tehlequah, OK 74820

Dear Principle Chief Smith:

The United States Army Reserve, 88th Regional Readiness Command (RRC) has determined that that the following facility will be closed pursuant to the 2005 Defense Base Closure and Realignment (BRAC) report:

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HEADQUARTERS, 88TH REGIONAL READINESS COMMAND  
506 ROEDER CIRCLE  
FORT SNELLING, MINNESOTA 55111-4009

December 5, 2006

Deputy Chief of Staff Engineer

Delaware Nation  
Attn: Mr. Bruce Gonzalez  
P.O. Box 825  
Anadarko, OK 73005

Dear President Gonzalez:

The United States Army Reserve, 88th Regional Readiness Command (RRC) has determined that the following facility will be closed pursuant to the 2005 Defense Base Closure and Realignment (BRAC) report:

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506 ROEDER CIRCLE  
FORT SNELLING, MINNESOTA 55111-4009

December 5, 2006

Deputy Chief of Staff Engineer

Eastern Band of Cherokee Indians  
Attn: Mr. Leon Jones  
P.O. Box 455  
Cherokee, NC 28719

Dear Principle Chief Jones:

The United States Army Reserve, 88th Regional Readiness Command (RRC) has determined that that the following facility will be closed pursuant to the 2005 Defense Base Closure and Realignment (BRAC) report:

Ft. Hayes Memorial United States Army Reserve Center (USARC)  
530 Jack Gibbs Blvd., Columbus, Ohio, 43215-1795

Enclosed is a copy of our study of historic structures at the Ft. Hayes Memorial USARC property. [Enclosure 1] This study was carried out pursuant to Section 110(a)(1) of the National Historic Preservation Act. The Reserve Center (Building 300) and maintenance garage (Building 301) were constructed in 1965. In addition, attached is the March 2005 "Ft. Hayes National Historic District, Columbus, Ohio: Condition Assessment, Stabilization, and Layaway Plan Update" which details the existing conditions for Building 118. Building 118, formerly the Ft. Hayes Gate House, was constructed in 1898. [Enclosure 2]

Also, attached is a copy of the Phase II Archaeological Survey that was completed for this site in July 2006. Note that no distinctive contributing elements to the historic district were identified and that no additional archaeological investigations are needed in the tested areas. [Enclosure 3]

Please note that Parcel B (4.5 acres) was officially transferred to the City of Columbus Public Schools in August 2006. Enclosed is the 15 August 2006 quitclaim deed with Historic Preservation Covenants that were used for this transfer. The Covenants start on page 21, Section 28. [Enclosure 4]

We have determined that the area of potential effects (APE) for this undertaking is as shown on the enclosed site plan. It is our determination that this undertaking, the proposed BRAC closure, will not have an adverse effect to the Ft. Hayes National Historic District due to the addition of Historic Preservation Covenants such as the ones used in the attached 15 August 2006 quitclaim for transfer to the City of Columbus Public Schools.

REPLY TO  
ATTENTION OF:

DEPARTMENT OF THE ARMY  
HEADQUARTERS, 88TH REGIONAL READINESS COMMAND  
506 ROEDER CIRCLE  
FORT SNELLING, MINNESOTA 55111-4009

December 5, 2006

Deputy Chief of Staff Engineer

Eastern Shawnee Tribe of Oklahoma  
Attn: Mr. Charles D. Enyart  
P.O. Box 350  
Seneca, MO 64865

Dear Chief Enyart:

The United States Army Reserve, 88th Regional Readiness Command (RRC) has determined that the following facility will be closed pursuant to the 2005 Defense Base Closure and Realignment (BRAC) report:

Ft. Hayes Memorial United States Army Reserve Center (USARC)  
530 Jack Gibbs Blvd., Columbus, Ohio, 43215-1795

Enclosed is a copy of our study of historic structures at the Ft. Hayes Memorial USARC property. [Enclosure 1] This study was carried out pursuant to Section 110(a)(1) of the National Historic Preservation Act. The Reserve Center (Building 300) and maintenance garage (Building 301) were constructed in 1965. In addition, attached is the March 2005 "Ft. Hayes National Historic District, Columbus, Ohio: Condition Assessment, Stabilization, and Layaway Plan Update" which details the existing conditions for Building 118. Building 118, formerly the Ft. Hayes Gate House, was constructed in 1898. [Enclosure 2]

Also, attached is a copy of the Phase II Archaeological Survey that was completed for this site in July 2006. Note that no distinctive contributing elements to the historic district were identified and that no additional archaeological investigations are needed in the tested areas. [Enclosure 3]

Please note that Parcel B (4.5 acres) was officially transferred to the City of Columbus Public Schools in August 2006. Enclosed is the 15 August 2006 quitclaim deed with Historic Preservation Covenants that were used for this transfer. The Covenants start on page 21, Section 28. [Enclosure 4]

We have determined that the area of potential effects (APE) for this undertaking is as shown on the enclosed site plan. It is our determination that this undertaking, the proposed BRAC closure, will not have an adverse effect to the Ft. Hayes National Historic District due to the addition of Historic Preservation Covenants such as the ones used in the attached 15 August 2006 quitclaim for transfer to the City of Columbus Public Schools.



REPLY TO  
ATTENTION OF:

DEPARTMENT OF THE ARMY  
HEADQUARTERS, 88TH REGIONAL READINESS COMMAND  
506 ROEDER CIRCLE  
FORT SNELLING, MINNESOTA 55111-4009

December 5, 2006

Deputy Chief of Staff Engineer

Forest County Potawatomi Community of Wisconsin  
Attn: Mr. Harold Frank  
P.O. Box 340  
Crandon, WI 54520

Dear Chairman Frank:

The United States Army Reserve, 88th Regional Readiness Command (RRC) has determined that the following facility will be closed pursuant to the 2005 Defense Base Closure and Realignment (BRAC) report:

Ft. Hayes Memorial United States Army Reserve Center (USARC)  
530 Jack Gibbs Blvd., Columbus, Ohio, 43215-1795

Enclosed is a copy of our study of historic structures at the Ft. Hayes Memorial USARC property. [Enclosure 1] This study was carried out pursuant to Section 110(a)(1) of the National Historic Preservation Act. The Reserve Center (Building 300) and maintenance garage (Building 301) were constructed in 1965. In addition, attached is the March 2005 "Ft. Hayes National Historic District, Columbus, Ohio: Condition Assessment, Stabilization, and Layaway Plan Update" which details the existing conditions for Building 118. Building 118, formerly the Ft. Hayes Gate House, was constructed in 1898. [Enclosure 2]

Also, attached is a copy of the Phase II Archaeological Survey that was completed for this site in July 2006. Note that no distinctive contributing elements to the historic district were identified and that no additional archaeological investigations are needed in the tested areas. [Enclosure 3]

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We have determined that the area of potential effects (APE) for this undertaking is as shown on the enclosed site plan. It is our determination that this undertaking, the proposed BRAC closure, will not have an adverse effect to the Ft. Hayes National Historic District due to the addition of Historic Preservation Covenants such as the ones used in the attached 15 August 2006 quitclaim for transfer to the City of Columbus Public Schools.

REPLY TO  
ATTENTION OF:

DEPARTMENT OF THE ARMY  
HEADQUARTERS, 88TH REGIONAL READINESS COMMAND  
506 ROEDER CIRCLE  
FORT SNELLING, MINNESOTA 55111-4009

December 5, 2006

Deputy Chief of Staff Engineer

Miami Tribe of Oklahoma  
Attn: Mr. Floyd Leonard  
P.O. Box 1326  
Miami, OK 74355

Dear Chief Leonard:

The United States Army Reserve, 88th Regional Readiness Command (RRC) has determined that the following facility will be closed pursuant to the 2005 Defense Base Closure and Realignment (BRAC) report:

Ft. Hayes Memorial United States Army Reserve Center (USARC)  
530 Jack Gibbs Blvd., Columbus, Ohio, 43215-1795

Enclosed is a copy of our study of historic structures at the Ft. Hayes Memorial USARC property. [Enclosure 1] This study was carried out pursuant to Section 110(a)(1) of the National Historic Preservation Act. The Reserve Center (Building 300) and maintenance garage (Building 301) were constructed in 1965. In addition, attached is the March 2005 "Ft. Hayes National Historic District, Columbus, Ohio: Condition Assessment, Stabilization, and Layaway Plan Update" which details the existing conditions for Building 118. Building 118, formerly the Ft. Hayes Gate House, was constructed in 1898. [Enclosure 2]

Also, attached is a copy of the Phase II Archaeological Survey that was completed for this site in July 2006. Note that no distinctive contributing elements to the historic district were identified and that no additional archaeological investigations are needed in the tested areas. [Enclosure 3]

Please note that Parcel B (4.5 acres) was officially transferred to the City of Columbus Public Schools in August 2006. Enclosed is the 15 August 2006 quitclaim deed with Historic Preservation Covenants that were used for this transfer. The Covenants start on page 21, Section 28. [Enclosure 4]

We have determined that the area of potential effects (APE) for this undertaking is as shown on the enclosed site plan. It is our determination that this undertaking, the proposed BRAC closure, will not have an adverse effect to the Ft. Hayes National Historic District due to the addition of Historic Preservation Covenants such as the ones used in the attached 15 August 2006 quitclaim for transfer to the City of Columbus Public Schools.

REPLY TO  
ATTENTION OF:

DEPARTMENT OF THE ARMY  
HEADQUARTERS, 88TH REGIONAL READINESS COMMAND  
506 ROEDER CIRCLE  
FORT SNELLING, MINNESOTA 55111-4009

December 5, 2006

Deputy Chief of Staff Engineer

Ottawa Tribe of Oklahoma  
Attn: Mr. Charles Todd  
P.O. Box 110  
Miami, OK 74355

Dear Chief Todd:

The United States Army Reserve, 88th Regional Readiness Command (RRC) has determined that the following facility will be closed pursuant to the 2005 Defense Base Closure and Realignment (BRAC) report:

Ft. Hayes Memorial United States Army Reserve Center (USARC)  
530 Jack Gibbs Blvd., Columbus, Ohio, 43215-1795

Enclosed is a copy of our study of historic structures at the Ft. Hayes Memorial USARC property. [Enclosure 1] This study was carried out pursuant to Section 110(a)(1) of the National Historic Preservation Act. The Reserve Center (Building 300) and maintenance garage (Building 301) were constructed in 1965. In addition, attached is the March 2005 "Ft. Hayes National Historic District, Columbus, Ohio: Condition Assessment, Stabilization, and Layaway Plan Update" which details the existing conditions for Building 118. Building 118, formerly the Ft. Hayes Gate House, was constructed in 1898. [Enclosure 2]

Also, attached is a copy of the Phase II Archaeological Survey that was completed for this site in July 2006. Note that no distinctive contributing elements to the historic district were identified and that no additional archaeological investigations are needed in the tested areas. [Enclosure 3]

Please note that Parcel B (4.5 acres) was officially transferred to the City of Columbus Public Schools in August 2006. Enclosed is the 15 August 2006 quitclaim deed with Historic Preservation Covenants that were used for this transfer. The Covenants start on page 21, Section 28. [Enclosure 4]

We have determined that the area of potential effects (APE) for this undertaking is as shown on the enclosed site plan. It is our determination that this undertaking, the proposed BRAC closure, will not have an adverse effect to the Ft. Hayes National Historic District due to the addition of Historic Preservation Covenants such as the ones used in the attached 15 August 2006 quitclaim for transfer to the City of Columbus Public Schools.



REPLY TO  
ATTENTION OF:

DEPARTMENT OF THE ARMY  
HEADQUARTERS, 88TH REGIONAL READINESS COMMAND  
506 ROEDER CIRCLE  
FORT SNELLING, MINNESOTA 55111-4009

December 5, 2006

Deputy Chief of Staff Engineer

Seneca Nation of Indians  
Attn: Mr. Cyrus Schindler  
1490-Rte. 438  
Irving, NY 14081

Dear President Schindler:

The United States Army Reserve, 88th Regional Readiness Command (RRC) has determined that that the following facility will be closed pursuant to the 2005 Defense Base Closure and Realignment (BRAC) report:

Ft. Hayes Memorial United States Army Reserve Center (USARC)  
530 Jack Gibbs Blvd., Columbus, Ohio, 43215-1795

Enclosed is a copy of our study of historic structures at the Ft. Hayes Memorial USARC property. [Enclosure 1] This study was carried out pursuant to Section 110(a)(1) of the National Historic Preservation Act. The Reserve Center (Building 300) and maintenance garage (Building 301) were constructed in 1965. In addition, attached is the March 2005 "Ft. Hayes National Historic District, Columbus, Ohio: Condition Assessment, Stabilization, and Layaway Plan Update" which details the existing conditions for Building 118. Building 118, formerly the Ft. Hayes Gate House, was constructed in 1898. [Enclosure 2]

Also, attached is a copy of the Phase II Archaeological Survey that was completed for this site in July 2006. Note that no distinctive contributing elements to the historic district were identified and that no additional archaeological investigations are needed in the tested areas. [Enclosure 3]

Please note that Parcel B (4.5 acres) was officially transferred to the City of Columbus Public Schools in August 2006. Enclosed is the 15 August 2006 quitclaim deed with Historic Preservation Covenants that were used for this transfer. The Covenants start on page 21, Section 28. [Enclosure 4]

We have determined that the area of potential effects (APE) for this undertaking is as shown on the enclosed site plan. It is our determination that this undertaking, the proposed BRAC closure, will not have an adverse effect to the Ft. Hayes National Historic District due to the addition of Historic Preservation Covenants such as the ones used in the attached 15 August 2006 quitclaim for transfer to the City of Columbus Public Schools.



REPLY TO  
ATTENTION OF:

DEPARTMENT OF THE ARMY  
HEADQUARTERS, 88TH REGIONAL READINESS COMMAND  
506 ROEDER CIRCLE  
FORT SNELLING, MINNESOTA 55111-4009

December 5, 2006

Deputy Chief of Staff Engineer

Seneca-Cayuga Tribe of Oklahoma  
Attn: Mr. LeRoy Howard  
P.O. Box 1283  
Miami, OK 74355

Dear Chief Howard:

The United States Army Reserve, 88th Regional Readiness Command (RRC) has determined that the following facility will be closed pursuant to the 2005 Defense Base Closure and Realignment (BRAC) report:

Ft. Hayes Memorial United States Army Reserve Center (USARC)  
530 Jack Gibbs Blvd., Columbus, Ohio, 43215-1795

Enclosed is a copy of our study of historic structures at the Ft. Hayes Memorial USARC property. [Enclosure 1] This study was carried out pursuant to Section 110(a)(1) of the National Historic Preservation Act. The Reserve Center (Building 300) and maintenance garage (Building 301) were constructed in 1965. In addition, attached is the March 2005 "Ft. Hayes National Historic District, Columbus, Ohio: Condition Assessment, Stabilization, and Layaway Plan Update" which details the existing conditions for Building 118. Building 118, formerly the Ft. Hayes Gate House, was constructed in 1898. [Enclosure 2]

Also, attached is a copy of the Phase II Archaeological Survey that was completed for this site in July 2006. Note that no distinctive contributing elements to the historic district were identified and that no additional archaeological investigations are needed in the tested areas. [Enclosure 3]

Please note that Parcel B (4.5 acres) was officially transferred to the City of Columbus Public Schools in August 2006. Enclosed is the 15 August 2006 quitclaim deed with Historic Preservation Covenants that were used for this transfer. The Covenants start on page 21, Section 28. [Enclosure 4]

We have determined that the area of potential effects (APE) for this undertaking is as shown on the enclosed site plan. It is our determination that this undertaking, the proposed BRAC closure, will not have an adverse effect to the Ft. Hayes National Historic District due to the addition of Historic Preservation Covenants such as the ones used in the attached 15 August 2006 quitclaim for transfer to the City of Columbus Public Schools.



REPLY TO  
ATTENTION OF:

DEPARTMENT OF THE ARMY  
HEADQUARTERS, 88TH REGIONAL READINESS COMMAND  
506 ROEDER CIRCLE  
FORT SNELLING, MINNESOTA 55111-4009

December 5, 2006

Deputy Chief of Staff Engineer

Wyandotte Tribe of Oklahoma  
Attn: Mr. Leaford Bearskin  
P.O. Box 250  
Wyandotte, OK 74370

Dear Chief Bearskin:

The United States Army Reserve, 88th Regional Readiness Command (RRC) has determined that that the following facility will be closed pursuant to the 2005 Defense Base Closure and Realignment (BRAC) report:

Ft. Hayes Memorial United States Army Reserve Center (USARC)  
530 Jack Gibbs Blvd., Columbus, Ohio, 43215-1795

Enclosed is a copy of our study of historic structures at the Ft. Hayes Memorial USARC property. [Enclosure 1] This study was carried out pursuant to Section 110(a)(1) of the National Historic Preservation Act. The Reserve Center (Building 300) and maintenance garage (Building 301) were constructed in 1965. In addition, attached is the March 2005 "Ft. Hayes National Historic District, Columbus, Ohio: Condition Assessment, Stabilization, and Layaway Plan Update" which details the existing conditions for Building 118. Building 118, formerly the Ft. Hayes Gate House, was constructed in 1898. [Enclosure 2]

Also, attached is a copy of the Phase II Archaeological Survey that was completed for this site in July 2006. Note that no distinctive contributing elements to the historic district were identified and that no additional archaeological investigations are needed in the tested areas. [Enclosure 3]

Please note that Parcel B (4.5 acres) was officially transferred to the City of Columbus Public Schools in August 2006. Enclosed is the 15 August 2006 quitclaim deed with Historic Preservation Covenants that were used for this transfer. The Covenants start on page 21, Section 28. [Enclosure 4]

We have determined that the area of potential effects (APE) for this undertaking is as shown on the enclosed site plan. It is our determination that this undertaking, the proposed BRAC closure, will not have an adverse effect to the Ft. Hayes National Historic District due to the addition of Historic Preservation Covenants such as the ones used in the attached 15 August 2006 quitclaim for transfer to the City of Columbus Public Schools.

-2-

Please accept this correspondence as notification, as required by The National Historic Preservation Act of 1966 (NHPA), as amended, the Archaeological Resources Protection Act of 1979 (ARPA), the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA), and the Presidential Executive Order 13175 Consultation and Coordination with Indian Tribal Governments. Per the above regulations, we are assessing what information we need in order to further identify culturally affiliated properties that may be affected by our proposed closure.

If 88th RRC activities were to impact cultural resources not previously identified, we will immediately proceed to inform you of the discovery and to invite you to assist the 88th RRC in the development of procedures for minimizing adverse impacts to the newly discovered cultural resources.

If there are specific individuals that you prefer we contact, please forward the name and method of initiating consultation with this individual, or with your designated tribal representative, traditional religious leader, or preferred NHPA point of contact. We are also contacting officials of other federally recognized tribes in Ohio to invite them to consult with us on this issue.

I look forward to working with you or your designated representative. If we do not hear from your office within 30 days, we intend to proceed with these projects. If you have any questions about these projects, or require additional assistance, please contact Ms. Carrie Schafer at (612) 713-3825 or by email at [Carrie.Schafer@us.army.mil](mailto:Carrie.Schafer@us.army.mil). Please address any correspondence to Ms. Schafer at the above address.

Sincerely,



Ricardo A. Javier  
Major, U.S. Army  
Regional Engineer

Enclosures

As part of their cultural resources coordination effort, the Army forwarded the following letter and a copy of the draft Building 118 Historic Preservation Covenants to the SHPO for their review and consideration.



DEPARTMENT OF THE ARMY  
HEADQUARTERS, 88TH REGIONAL READINESS COMMAND  
506 ROEDER CIRCLE  
FORT SNELLING, MINNESOTA 55111-4009

March 26, 2007

Deputy Chief of Staff Engineer

Ohio Historic Preservation Office  
Resource Protection and Review  
Mr. Mark Epstein, Department Head  
567 East Hudson St.  
Columbus, OH 43211-1030

Dear Mr. Epstein:

The Ft. Hayes Memorial United States Army Reserve Center (USARC) in Columbus, Ohio will be closed pursuant to the 2005 Defense Base Closure and Realignment (BRAC) report. The USARC (commonly called the "300 Complex"), at 530 Jack Gibbs Boulevard, Columbus, Ohio, 43215, consists of three buildings (two administrative and one vehicle maintenance) located on 10.78 acres of land. The site is landscaped with grass, trees, and shrubs.

Enclosed is a copy of the study of historic structures at the Ft. Hayes Memorial USARC property that was coordinated with your office in 1997 by the Fort McCoy Archaeology Laboratory on our behalf. [Enclosure 1] This study was carried out pursuant to Section 110(a)(1) of the National Historic Preservation Act. The Reserve Center (Administrative, Building 300) and maintenance shop (Building 301) were constructed in 1965. Building 118 (Administrative), formerly the Ft. Hayes Gate House, was constructed in 1898. Additional details on the existing condition of Building 118 are provided in the enclosed March 2005 "Ft. Hayes National Historic District, Columbus, Ohio: Condition Assessment, Stabilization, and Layaway Plan Update." [Enclosure 2]

A Phase II Archaeological Survey was conducted at Ft. Hayes for a portion of site 33FR2304, recorded during an October 2003 Phase I archaeological survey of two tracts at Fort Hayes. On 27 June 2006, Mr. David Snyder, Archaeology Reviews Manager, concurred with our findings that no distinctive contributing elements to the historic district were identified and that no additional archaeological investigations are needed in the tested areas. In August 2006, we completed the "Phase II Archaeological Survey of East Lawn Triangle and Building 103 Loci Archaeological Site 33FR2304, Fort Hayes, Franklin County, Ohio." [Enclosure 3]

Based on the above studies and communication with your office, we have determined that the area of potential effects (APE) for this undertaking are as shown on the enclosed Ft. Hayes Historic District site plan. Additionally, it is our determination that the proposed BRAC closure will not have an adverse effect on the Ft. Hayes National Historic District due to the addition of

-2-

Historic Preservation Covenants to the transfer deed similar to as those used for the transfer of Former AMSA# 56 (Parcel B/4.5 acres) to the City of Columbus Public Schools in August 2006. [Enclosure 4] Enclosed are the covenants specifically designed for this disposal action through consultation with Messrs. Justin Cook and Dave Snyder of your staff. [Enclosure 5] The 88th RRC, or its descendant should reorganization occur before this action is complete, will ensure these covenants are made a part of the real estate transfer deed.

If we do not hear from you within thirty (30) days, we will assume that you concur with our determination and will proceed as discussed above. If you have any questions about this project, or require additional assistance, please contact Ms. Carrie Schafer at (612) 713-3825 or via email at [carrie.schafer@us.army.mil](mailto:carrie.schafer@us.army.mil). Please address any correspondence to Ms. Schafer at the above address. You may also address any BRAC-related questions to Mr. Ernie Seckinger of the Army BRAC NEPA Support Team at (251) 694-4107 or via email at [ernie.seckinger@us.army.mil](mailto:ernie.seckinger@us.army.mil).

Sincerely,

  
DAVID L. MOORE  
Environmental Division Chief

ENCL

Fort Hayes  
Franklin County  
Ohio  
Building 118  
Historic Preservation Covenants

The Fort Hayes Historic District is eligible for the National Register of Historic Places. Building 118 (Property) is a contributing element to that district. The GRANTEE, in accepting this Deed, acknowledges and accepts the following conditions and covenants,

(1) GRANTEE shall maintain and preserve the Property in accordance with the recommended approaches in The Secretary of Interior's Standards for Treatment of Historic Properties, 1995, Standards for Preservation (Technical Preservation Services for Historic Buildings, National Park Service) (Standards) in order to preserve and enhance the distinctive materials, features and spaces that make the Property eligible for inclusion in the National Register of Historic Places.

(2) When rehabilitation is the appropriate treatment, GRANTEE shall rehabilitate the Property in accordance with the recommended approaches in the Standards. Rehabilitation is appropriate when repair and replacement of deteriorated features is necessary or when alteration or additions to the Property are planned.

(3) Distinctive materials, features, finishes, construction techniques and examples of craftsmanship that characterize the Property shall be preserved.

(4) Plans of proposed rehabilitation, construction, alteration or replacement of distinctive materials, features, finishes or spaces which would affect the appearance or structural integrity of the Property shall be reviewed and approved by the State Historic Preservation Officer (SHPO) for consistency with the Standards.

(5) The SHPO shall be permitted at all times to inspect the Property in order to ascertain if the above conditions are being observed,

(6) In the event that the Property or any associated historic artifact associated with the Property ceases to be maintained in compliance with the covenants, conditions and restrictions set forth in this section, in addition to any remedy now or hereafter provided by law, the SHPO may, following reasonable notice to GRANTEE, institute suit to enjoin said violation or to require restoration of the Property.

(7) The covenants, conditions and restrictions contained herein shall be inserted by the GRANTEE verbatim or by express reference in any deed or other legal instrument by which it divests itself of either the fee simple title or any other lesser estate in the Property,

(8) The GRANTEE agrees that the SHPO may, at its discretion, without prior notice to the GRANTEE, convey and assign all or part of its rights and responsibilities contained herein to a third party.

(9) The failure of the SHPO to exercise any right or remedy granted under this instrument shall not have the effect of waiving or limiting the exercise of any other right or remedy or the use of such right or remedy at any other time.

(10) The covenants, conditions and restrictions set forth in this Historic Preservation Covenant shall constitute a binding servitude upon the Property and shall be deemed to run with the land.

(11) The above covenants shall be binding in perpetuity: however, the SHPO may, for good cause, modify, suspend, or cancel any or all of the covenants upon written application of the GRANTEE.



April 16, 2007

David L. Moore  
Environmental Division Chief  
Department of the Army  
Headquarters, 88<sup>th</sup> Regional Readiness Command  
506 Roeder Circle  
Fort Snelling, Minnesota 55111-4009

Dear Mr. Moore:

Re: Disposal of Buildings 118, 300, and 301 at Fort Hayes, 530 Jack Gibbs Boulevard,  
Columbus, Ohio

This is in response to correspondence received on April 2, 2007. My comments are made pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended, and the associated regulations at 36 CFR Part 800.

Ft. Hayes Memorial United States Army Reserve Center (USARC) will be closed pursuant to the 2005 Defense Base Closure and Realignment (BRAC) report. The facility, located at 530 Jack Gibbs Boulevard in Columbus, Ohio consists of three buildings located on 10.78 acres of land. Buildings 300 (administrative) and 301 (vehicle maintenance) were constructed in 1965. Building 118 (administrative) was constructed in 1898 and is a contributing resource in the Fort Hayes Historic District, which is listed in the National Register of Historic Places (NR Ref. # 70000491).

The Department of the Army (Army) proposes to dispose of the Fort Hayes USARC facility. To ensure the long-term preservation of Building 118, the Army proposes to add the attached covenants to the transfer deed to the property. The Army seeks our concurrence that the disposal will have no adverse effect on historic properties.

A historic structures study completed in 1997 by the Fort McCoy Archaeological Laboratory and coordinated with the Ohio Historic Preservation Office (OHPO) resulted in a consensus determination that Buildings 300 and 301 did not meet National Register Criteria for Evaluation.

Phase II archaeological survey was conducted in October 2003 and August 2006 for separate portions of site 33-FR-2304 (October 2003), which is located within Fort Hayes. Reports documenting the results of these surveys were provided to the Ohio Historic Preservation Office. David Snyder, Archaeology Reviews Manager at OHPO, has concurred that no distinctive contributing elements to the Fort Hayes Historic District were identified and that no additional archaeological investigations are needed in the tested areas. Furthermore, it is Mr. Snyder's opinion that additional archaeological investigations within the 10.78 acres that comprise the Ft. Hayes USARC are unlikely to result in the identification of historic properties.

Provided that the attached covenants are placed on the deed to the property, I concur with the Army's finding that the disposal of Fort Hayes facility will have no adverse effect on historic properties. No further coordination with this office is necessary unless there is a change in the project.

OHIO HISTORICAL SOCIETY

*Ohio Historic Preservation Office*

567 East Hudson Street, Columbus, Ohio 43211-1030 ph: 614.298.2000 fx: 614.298.2037  
www.ohiohistory.org



David L. Moore  
April 16, 2007

Page Two

If you have any questions, please contact Justin Cook, History Reviews Manager, by phone at (614) 298-2000 or by e-mail at [jcook@ohiohistory.org](mailto:jcook@ohiohistory.org). Thank you for your cooperation.

Sincerely,

Mark J. Epstein, Department Head  
Resource Protection and Review

MJE:jmc

1011975

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## **APPENDIX B**

# **NATURAL RESOURCES SURVEY**

A Natural Resources Survey of Facility OH013 – Fort Hayes Memorial USARC and Facility OH111 – Old Fort Hayes Memorial USARC was conducted for the Army by Parsons in 2005. The surveys were completed to assess whether any threatened or endangered species exist in the area, including sensitive habitats for these species. The survey and a memorandum for record summarizing these findings are included on the following pages.



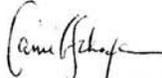
DEPARTMENT OF THE ARMY  
 HEADQUARTERS, 88TH REGIONAL READINESS COMMAND  
 506 ROEDER CIRCLE  
 FORT SNELLING, MINNESOTA 55111-4009

MEMORANDUM FOR RECORD

15 March 2007

SUBJECT: Ft. Hayes Memorial USARC BRAC Closure Determination of Effect

1. The Ft. Hayes Memorial United States Army Reserve Center (USARC) in Columbus, Ohio will be closed pursuant to the 2005 Defense Base Closure and Realignment (BRAC) report. The USARC (commonly called the "300 Complex"), at 530 Jack Gibbs Boulevard, Franklin County, Columbus, Ohio, 43215, consists of three buildings (two administrative and one vehicle maintenance) located on 10.78 acres of land. The site is landscaped with grass, trees, and shrubs.
2. To begin Endangered Species Act - Section 7 documentation, the 88th Regional Readiness Command (RRC) completed a Natural Resource Survey to identify whether any threatened/endangered species and sensitive habitats are present in the area or do/could exist on the property. The Survey included correspondence with the U.S. Fish and Wildlife Service (USFWS), Reynoldsburg Field Office and the Ohio Department of Natural Resources (ODNR), Division of Natural Areas and Preserves. [Enclosure 1]
3. Federally listed species in Franklin County include the Indiana bat (Endangered), Scioto madtom (Endangered), eastern massasauga (Candidate), clubshell mussel (Endangered), and northern riffleshell (Endangered). Based on records received from the USFWS and the ODNR, and a survey of the current land use and surrounding area land use, this area is not known to support any State and/or Federally listed Threatened/Endangered Species. It has little or no potential habitat for Threatened or Endangered Species. There are no significant natural heritage resources within a 3,280-foot radius of the facility boundary.
4. With this information, the USAR determines that the action described above will have "no effect" to federally listed species or proposed listed species under the mandates of Section 7 of the Endangered Species Act of 1973, as amended. Per phone conversation with the USFWS, the USFWS does not require our determination and their concurrence in writing, but recommends a Memorandum for Record documenting this determination.
5. If you have any questions about this determination, or require additional information, please contact Ms. Carrie Schafer at (612) 713-3825 or via email at [carrie.schafer@us.army.mil](mailto:carrie.schafer@us.army.mil).

Carrie L. Schafer   
 Sr. Environmental Planner, J.M. Waller Contractor  
 88th RRC – Environmental

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*Section 5 - Survey Results*

## **FACILITY OH013 – FT HAYES MEMORIAL USARC AND FACILITY OH111 - OLD FT HAYES MEMORIAL USARC**

### **GENERAL DESCRIPTION**

Ft. Hayes Memorial USARC (FACID OH013, INSNO 39220) and Old Ft. Hayes Memorial USARC (FACID OH013, INSNO 39220) will be discussed in this report together as one facility. OH013 consists of the USARC, an OMS, and associated parking areas. OH111 consists of two USARC buildings, three OMS buildings, a heated storage structure, and associated parking. This facility provides training, storage and miscellaneous support services for four reserve units. Parking areas, located on the site, support military vehicles and public parking. The 88<sup>th</sup> RRC owns the twelve buildings and land that compose OH013/OH111.

### **GEOGRAPHIC LOCATION AND SIZE**

OH013/OH111 is located in Columbus, Franklin County, Ohio. OH111 is located approximately 900 feet north of OH013. The two parcels share the same mailing address (530 Jack Gibbs Boulevard) and INSNO (39220). Total acreage for OH013/OH111 was calculated at 13.97 acres (9.47 acres for OH013 and 4.5 acres for OH111) in the GIS using aerial photography; the Real Property Detail Report shows the acreage as 15.25 acres (10.78 acres for OH013 and 4.47 acres for OH111). The site can be accessed from the Route 3 North exit from I-71 (North Innerbelt). Surrounding land use includes institutional lands (north and east of facility), and commercial and industrial lands (south and west of facility).

### **GEOLOGICAL RESOURCES**

#### **Physiography and Geology**

This site is located within the Till Plains. This province is characterized by gently rolling hills composed of glacier-created mounds of rock up to 100 feet high and six miles

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*Section 5 - Survey Results*

wide. The soils are some of the most fertile soils in the country. The Till Plain marks the beginning of the corn belt.

**Soils**

Soils underlying this site belong to the Miamian – Kokomo - Eldean soil region, which consists of soils developed in areas having gently sloping to level lands (0 to 20 percent slope) and average annual precipitation of approximately 39 inches. Miamian – Kokomo - Eldean soils consist of well drained weathered loess. These soils developed on the Till Plains following glacial retreat. They are generally fertile soils, with rolling topography resulting from mounds of rock and soil created by glacial action. Only one soil mapping unit is present in the vicinity of the facility, Bennington – Urban land complex. Native vegetation is mixed deciduous hardwood forest. Most areas are used for cropland. Soil map units within the facility boundaries are shown in the OH013/OH111 Soils Map.

**Topography**

The site's topographic setting is approximately 780 to 800 feet AMSL, with minimal topographic relief.

**WATER RESOURCES****Watershed and Surface Waters**

The site lies within the Olentangy River watershed, in the vicinity of its confluence with the Scioto River. The Scioto River is approximately 1 mile southwest of the facility and the Olentangy River is approximately 1.5 miles east of the facility. The site is located approximately 150 miles upstream of the Scioto River's confluence with the Ohio River.

**Floodplains**

The floodplain mapping for the site is based on digital Q3 Flood Data produced by the FEMA. No digital floodplains data is available in the immediate vicinity of the facility.

*Section 5 - Survey Results*

**BIOLOGICAL RESOURCES**

Land Cover and Ecological Communities

Parking areas and other impervious surfaces covered approximately 55 percent of the total property making up OH013/OH111. Approximately 30 percent of the total site supported maintained grass, shrubs, and landscaping trees. The trees were large and resulted in portions of the facility having a "city park" atmosphere. Trees were in the range of two to four foot diameter at breast height (dbh), and included white oak (*Quercus alba*), sugar maple (*Acer saccharinum*), sweet gum (*Liquidambar styraciflua*), sycamore (*Platanus occidentalis*), white ash (*Fraxinus americana*), American elm (*Ulmus americana*), spruce (*Picea* sp.), pin oak (*Quercus palustris*), and mossycup oak (*Quercus macrocarpus*). No shrubs or young trees were planted in this area. Buildings occupy the remaining 15 percent of the total property. Table 5.6 provides a comprehensive list and size of the land use covers located within the facility boundaries. The Land Cover Map shows the distribution of the land covers.

**TABLE 5.6  
LAND COVER AND ECOLOGICAL COMMUNITIES AT OH013/OH111**

Land Cover and Ecological Communities	Calculated Area <sup>(1)</sup>		Percent of Installation <sup>(1)</sup>
	Hectares	Acres	
<b>OH013</b>			
Buildings	0.46	1.13	12
Paved Road/Parking	2.11	5.22	55
Maintained Grass	1.26	3.12	33
<b>OH111</b>			
Buildings	0.36	0.90	20
Paved Road/Parking	1.01	2.50	56
Maintained Grass	0.45	1.10	24
<b>Total</b>			
Buildings	0.82	2.03	15
Paved Road/Parking	3.12	7.72	55
Maintained Grass	1.71	4.22	30

(1) Area calculations based on Land Cover Map.

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*Section 5 - Survey Results***Wetlands**

No wetlands are present on, or in the immediate vicinity of, the facility. The NWI data is not available for this portion of Ohio. OWI data shows a number of wetlands on the property (Facility Map). This wetland information is erroneous for the site, as no wetlands are present on the facility.

**Wildlife**

Wildlife observed on the facility included songbirds and gray squirrels. The facility and surrounding areas are intensively developed, with little natural habitat remaining. Only urban wildlife is expected to be present on the facility or in its immediate vicinity.

**Rare Species**

Federally listed species in Franklin County include the Indiana bat (Endangered), Scioto madtom (Endangered), eastern massasauga (Candidate), clubshell mussel (Endangered), and northern riffleshell (Endangered). Based on records received from the USFWS and the ODNR, and a survey of the current land use and surrounding area land use, this area is not known to support any State and/or Federally listed Threatened/Endangered Species. It has little or no potential habitat for Threatened or Endangered Species.

**Special Interest Areas**

There are no significant natural heritage resources within a 3,280-foot radius of the facility boundary.

**MANAGEMENT ISSUES AND CONCERNS**

No significant natural resource management issues were observed at the site. Based on the developed nature of the site, small size, and lack of sensitive natural resources, no specific natural resources management activities are required at this facility.

Section 5 - Survey Results

**U.S. ARMY RESERVE 88<sup>TH</sup> REGIONAL READINESS COMMAND  
NATURAL RESOURCES FACT SHEET**

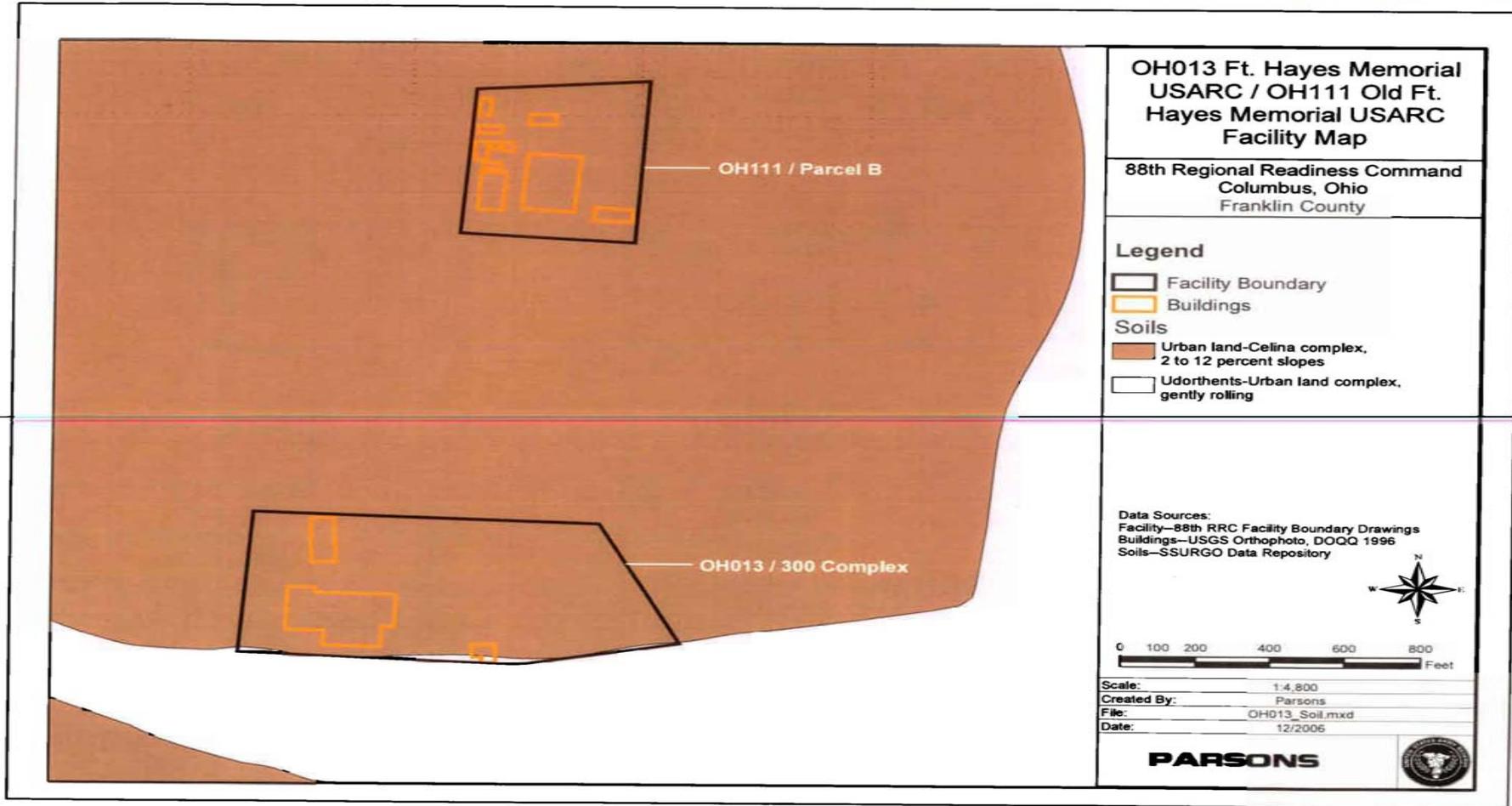
Facility Location Information			
<b>FACID:</b> OH013/OH111	<b>INSNO:</b> 39220	<b>State:</b> Ohio	<b>USGS Quad:</b> Southeast Columbus
<b>Facility Name:</b> OH013 Ft. Hayes Memorial USARC (300 Complex, 10.78 acres) and OH111 Old Ft. Hayes Memorial USARC (Parcel B, 4.47 acres)		<b>County:</b> Franklin	<b>Land Survey:</b> T5N R22W
<b>Type of Facility:</b> USARC/OMS	<b>Address:</b> 530 Jack Gibbs Blvd		<b>Acreage Calc.:</b> 13.97 <b>Real:</b> 15.25
<b>Facility POC:</b> CWO Bill Riffle	<b>City/State/Zip:</b> Columbus, OH 43215	<b>Phone:</b> 614-692-5451	
<b>Ownership:</b> The 88 <sup>th</sup> RRC owns the 12 buildings and land that compose OH013/OH111.			<b>Survey Date:</b> July 22, 2003

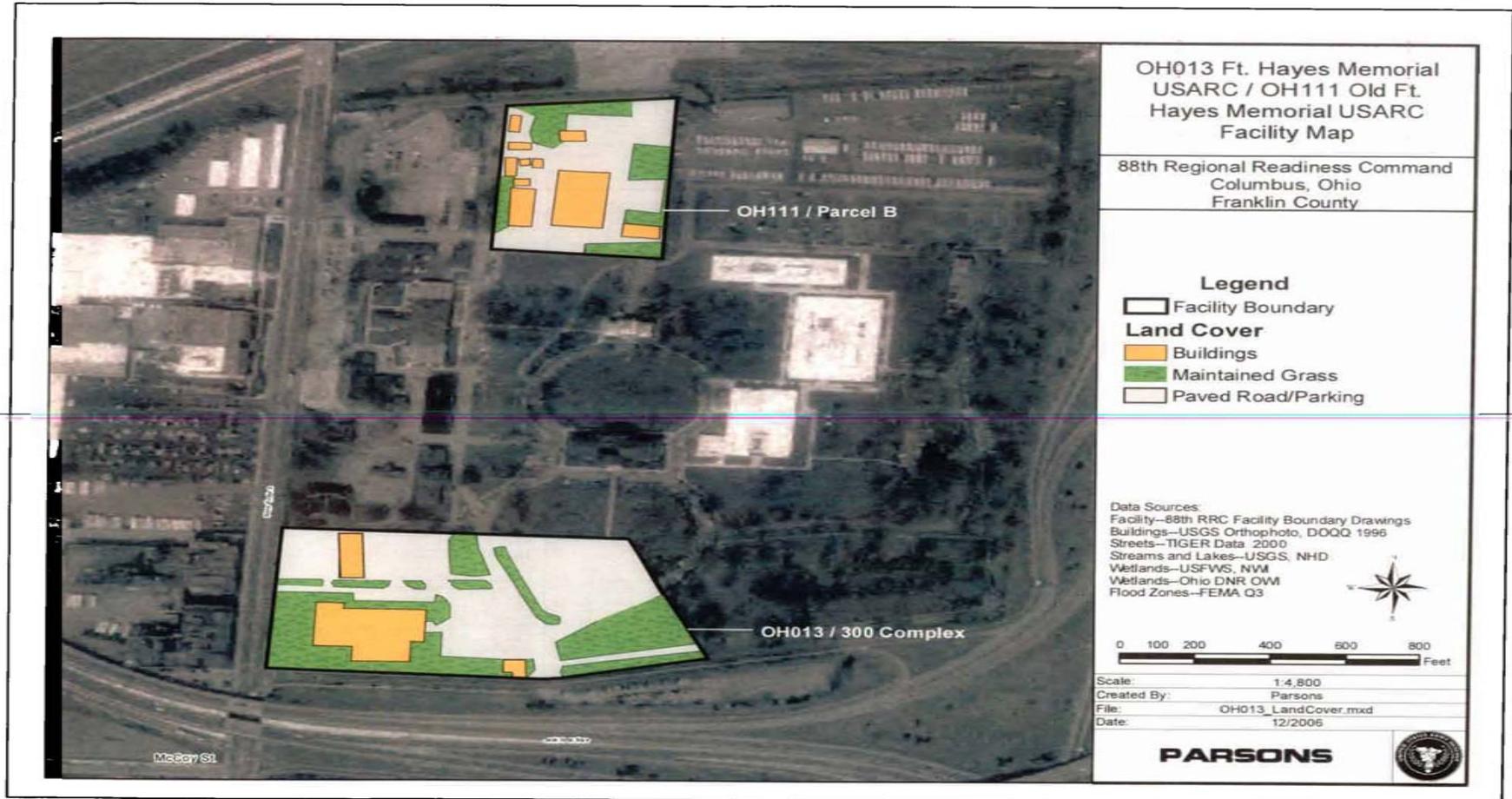
Land Use	
<b>On-site Land Use:</b>	56% improved areas including paved parking and buildings. Remaining 44% is maintained grass areas.
<b>Surrounding Land Use:</b>	North and east – institutional lands, south– highway and commercial, west—commercial and industrial.
Geologic Resources	
<b>Physiographic Province:</b>	Till Plains
<b>State Region:</b>	South central
<b>Geologic Formation:</b>	Ground Moraine (Devonian)
<b>Soil Region:</b>	Miamian – Kokomo – Eldean soil region, with Bennington – Urban land complex mapping unit
<b>Topography:</b>	Relatively flat site at 780-800 ft AMSL.
Water Resources	
<b>Watershed:</b>	Olentangy River– Scioto River
<b>Floodplains:</b>	No floodplains on, or in vicinity of, facility.
<b>On-Site Surface Water:</b>	None
<b>Off-site Surface Water:</b>	None in vicinity.
Biological Resources	
<b>Vegetation Communities/Land Cover:</b>	No natural vegetation communities on-site.
<b>On-site Wetlands:</b>	OWI data shows wetlands on-site, but site visit indicated no wetlands are present.
<b>Off-site Wetlands:</b>	OWI data indicates wetlands north and south of facility.
<b>On-site Rare Species:</b>	None
<b>On-site Potential Rare Species Habitat:</b>	Low potential for on-site rare species due to lack of natural areas.
<b>Off-site Rare Species:</b>	None.
<b>Federally Listed Species in County:</b>	Indiana bat (E), Scioto madtom (E), eastern massasauga (C), clubshell mussel (E), and northern riffleshell mussel (E).
Other Sensitive Resources	
<b>On-site Resources:</b>	None
<b>Off-site Resources:</b>	None

Notes: FACID-Facility ID, INSNO-Installation Number, E-federal endangered, T-federal threatened, C-federal candidate, Acreage Calc.-value calculated in GIS, Real-value given in The Real Property Detail Report.



5 - 62





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*Appendix A – Agency Correspondence*

**APPENDIX A  
AGENCY CORRESPONDENCE**

*88<sup>TH</sup> RRC Natural Resources Surveys - Michigan*  
G:\743\743350\Michigan\Final\Appendix\_A (Agency\_Correspondance).doc

*Final September 2005*

# PARSONS

10521 Rosehaven Street • Fairfax, Virginia 22030 • (703) 591-7575 • Fax: (703) 591-1305 • www.parsons.com

March 28, 2003

Mr. Bill Kerry  
U.S. Fish and Wildlife Service  
Reynoldsburg Ecological Services Field Office  
6950 Americana Parkway, Suite H  
Reynoldsburg, Ohio 43068-4127

Re: Endangered and Threatened Species Information Request for Multiple U.S. Army Reserve  
88<sup>th</sup> Regional Support Command Facilities

Dear Mr. Kerry:

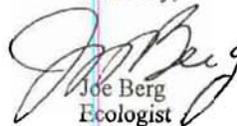
As we discussed during our March 5, 2003 phone conversation, Parsons is conducting natural resources surveys for the U.S. Army Reserve 88<sup>th</sup> Regional Support Command (RSC) at 38 facilities in Ohio. The purpose of the surveys is to collect comprehensive baseline data to support the 88<sup>th</sup> RSC's Natural Resources Management Program and to develop a geographic information system. The surveys are not being conducted to address a specific action or development project.

As part of our background research, we would like to request information about federally listed endangered and threatened species that might be present at or in the vicinity of the 88<sup>th</sup> RSC facilities listed in Table 1. We also request your input regarding the need to conduct species-specific surveys for federally listed species at each facility, as well as species-specific survey protocols. Information regarding species that are proposed for or are under consideration for federal listing is also requested.

Table 1 includes the facility ID, name, street address, county, USGS quadrangle, and approximate acreage. The facility locations and general boundaries are provided in an Arc View shape file that will be submitted via e-mail. As discussed on the phone, Parsons is submitting a similar request to the Ohio Department of Natural Resources (ODNR), Natural Heritage Data Services. A copy of that request is enclosed. We will forward a copy of the ODNR findings, when available, for your files.

Parsons and the 88<sup>th</sup> RSC greatly appreciate your assistance on this important project. Please feel free to contact Joe Berg at (703) 359-7652 or Ms. Carrie Schafer, 88<sup>th</sup> RSC, Senior Environmental Planning Specialist, at (612) 713-3825 with any questions regarding this request or the planned surveys.

Sincerely,



Joe Berg  
Ecologist

JB:jb

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Enclosures

cc: Carrie Schafer, 88<sup>th</sup> RSC  
Mark Collins, Parsons  
File 743080, Agency Correspondence



# PARSONS

10521 Rosehaven Street • Fairfax, Virginia 22030 • (703) 591-7575 • Fax: (703) 591-1305 • www.parsons.com

March 28, 2003

Mr. Greg Schneider  
Ohio Department of Natural Resources  
Natural Heritage Data Services  
1889 Fountain Square Court, Building F-1  
Columbus, Ohio 43224

Re: Ohio Natural Heritage Data Services Information Request for Multiple U.S. Army Reserve  
88<sup>th</sup> Regional Support Command Facilities

Dear Mr. Schneider:

As we discussed during our March 5, 2003 phone conversation, Parsons is conducting natural resources surveys for the U.S. Army Reserve 88<sup>th</sup> Regional Support Command (RSC) at 38 facilities in Ohio. The purpose of the surveys is to collect comprehensive baseline data to support the 88<sup>th</sup> RSC's Natural Resources Management Program and to develop a geographic information system. The surveys are not being conducted to address a specific action or development project.

As part of our background research, we would like to request information from the Ohio Natural Heritage Data Services for each of the 88<sup>th</sup> RSC facilities listed in Table 1. This table includes the facility ID, name, street address, county, USGS quadrangle, and approximate acreage. As we discussed on the phone, I am also sending via e-mail an ArcView shapefile that contains the location and general boundaries of each facility. Please note that the shapefiles are in the UTM projection, meters, NAD83. The facility ID numbers are provided in the attribute tables. An electronic copy of Table 1 has also been submitted by e-mail.

We would like to request the following information:

- All natural heritage resources (e.g., plants and animals, natural communities, other special features, natural areas, and managed areas) at each facility and within 1,000 ft of each facility's perimeter for terrestrial and aquatic resources;
- The general location (i.e., distance and direction from the facility) for each natural heritage resource identified by the above search;
- A list of endangered and threatened species (state and federal), species proposed for listing, and species under review for possible listing for the Ohio counties listed in Table 1; and
- Potential facility-specific management issues and concerns for identified natural heritage resources.

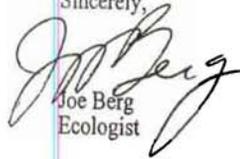
We will use this information to help develop facility-specific methods for conducting our field surveys. Therefore, we would also request input regarding the need for species-specific surveys and survey methods.



Mr. Greg Schneider  
March 28, 2003  
Page 2

Parsons and the 88<sup>th</sup> RSC greatly appreciate your assistance on this important project. Please feel free to contact Joe Berg at (703) 359-7652 or Ms. Carrie Schafer, 88<sup>th</sup> RSC, Senior Environmental Planning Specialist, at (612) 713-3825 with any questions regarding this request or the planned surveys.

Sincerely,



Joe Berg  
Ecologist

JB:jb

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Enclosures

cc: Carrie Schafer, 88<sup>th</sup> RSC  
Mark Collins, Parsons  
File 743080, Agency Correspondence



## Ohio Department of Natural Resources

BOB TAFT, GOVERNOR

SAMUEL W. SPECK, DIRECTOR

743080, 0170  
Agency Correspondence

Division of Natural Areas & Preserves  
 Nancy Strayer, Acting Chief  
 1889 Fountain Square, Bldg. F-1  
 Columbus, OH 43224-1388  
 Phone: (614) 265-6453 Fax: (614) 267-3096

April 14, 2003

Joe Berg  
 Parsons Corporation  
 10521 Rosehaven St., 2<sup>nd</sup> Floor  
 Fairfax, VA 22030

Dear Mr. Berg:

After reviewing our Natural Heritage maps and files, I find the Division of Natural Areas and Preserves has records of rare or endangered species within 1000 feet of the Parsons Corporation project for the U.S. Army Reserve 88<sup>th</sup> Regional Support Command. I have provided an Arcview shape file of these areas with this letter. It is in the projection of NAD 83 Ohio South, feet.

Our inventory program has not completely surveyed Ohio and relies on information supplied by many individuals and organizations. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area. Our data for natural areas not managed by the Department of Natural Resources is incomplete but we are working to rectify the situation. Although we inventory all types of plant communities, we only maintain records on the highest quality areas. Also we do not have data for all Ohio wetlands. The Division of Wildlife has a statewide wetland inventory that can give you additional data. Their phone number is (614) 265-6300. For National wetlands Inventory maps, please contact Madge Fitak in the Division of Geological Survey at (614) 265-6576. Aerial photos may be obtained from ODOT at (614) 275-1369. USGS maps can be requested directly from the U.S. Geological Survey at 1-888-275-8747.

Please contact me at (614) 265-6409 if I can be of further assistance.

Sincerely,

Butch Grieszmer, Ecological Analyst  
 Support Services Group

Summary of GIS Data Provided in Response to March 28, 2003 Consultation with ODNR's Natural Heritage Data Services Request

FacID	Common Name	Scientific Name	Type	Date	OH Status	Federal Status
OH002	UPLAND SANDPIPER	BARTRAMIA LONGICALDA	Bird		T	
OH028	CYPRESS-KNEE SEDGE	CAREX DECOMPOSITA	Vascular Plant	1973	E	
OH028	FALSE HOP SEDGE	CAREX LUPULIFORMIS	Vascular Plant	1992	E	
OH028	FOUR-TOED SALAMANDER	HEMIDACTYLUM SCUTATUM	Amphibian	1984	T	
OH028	SMOOTH GREEN SNAKE	OPHEODRYS VERNALIS	Reptile	1964	S	
OH032	FLAT FLOATER	ANODONTA SUBORBICULATA	Fish	1986	#	
OH032	RIVER REDHORSE	MOXOSTOMA CARINATUM	Fish	1990	S	
OH038	EASTERN SPADEFOOT	SCAPHIOPUS HOLBROOKII	Amphibian	1983	S	
OH039	SAND DROPSEED	SPOROBOLUS CRYPTANDRUS	Vascular Plant	1993	E	
OH041	PRAIRIE RATTLESNAKE-ROOT	PRENANTHES RACEMOSA	Vascular Plant	1986	P	
OH044	BROAD-WINGED SEDGE	CAREX ALATA	Vascular Plant	1978	P	
OH094	PURPLE TRIPLE-AWNED GRASS	ARISTIDA PURPURASCENS	Vascular Plant	1994	P	
OH094	EMMONS' SEDGE	CAREX ALBICANS VAR. EYMON	Vascular Plant	1996	P	
OH094	TANSY-MUSTARD	DESCURAINIA PINNATA	Vascular Plant	1981	T	
OH094	GREAT PLAINS GOLDENROD	EUTHAMIA GYMNOSPERMOIDES	Vascular Plant	1987	T	
OH094	SMALL FRINGED GENTIAN	GENTIANOPSIS PROCERA	Vascular Plant	1996	T	
OH094	ROUGH PENNYROYAL	HEDEOMA HISPIDUM	Vascular Plant	1980	P	
OH094	PLAINS FROSTWEED	HELIANTHEMUM BICKNELLII	Vascular Plant	1989	T	
OH094	CANADA FROSTWEED	HELIANTHEMUM CANADENSE	Vascular Plant	1986	T	
OH094	WESTERN SUNFLOWER	HELIANTHUS OCCIDENTALIS	Vascular Plant	1989	P	
OH094	CANADIAN ST. JOHNS-WORT	HYPERICUM CANADENSE	Vascular Plant	1981	P	
OH094	KALMS ST. JOHNS-WORT	HYPERICUM KALMIANUM	Vascular Plant	1990	T	
OH094	GREENE'S RUSH	JUNCUS GREENEI	Vascular Plant	1993	T	
OH094	DWARF DANDELION	KNIGIA VIRGINICA	Vascular Plant	1996	E	
OH094	LEGGETT'S PINWEED	LECHEA FULCHELLA	Vascular Plant	1989	T	
OH094	GROOVED FLAX	LINUM SULCATUM	Vascular Plant	1979	P	
OH094	TUBERCLED REIN-ORCHID	PLATANThERA FLAVA	Vascular Plant	1978	P	
OH094	FEW-FLOWERED NUT-RUSH	SCLERIA PAUCIFLORA	Vascular Plant	1981	P	
OH094	PORCUPINE GRASS	STIPA SPARTEA	Vascular Plant	1978	T	
OH094	LARGE CRANBERRY	VACCINIUM MACROCARPON	Vascular Plant	1989	T	
				1969	P	

**DATA REQUEST**

OHIO DEPARTMENT OF NATURAL RESOURCES  
 DIVISION OF NATURAL AREAS AND PRESERVES  
 NATURAL HERITAGE DATA SERVICES  
 1889 FOUNTAIN SQUARE COURT, BUILDING F-1  
 COLUMBUS, OHIO 43224  
 PHONE: 614-265-6453; FAX: 614-267-3096

**INSTRUCTIONS:**

Fill out both pages of the form; sign it and return it to the address or fax number listed above along with: (1) a letter formally requesting data and describing your project, and (2) a map detailing the boundaries of your study area. A photocopy from the pertinent portion of a USGS 7.5 minute topographic map is preferred but other maps are acceptable. Our turnaround time is two weeks, although we can often respond more quickly.

**FEES:**

Fees are determined by the amount of time it takes to complete your project. The charge is \$25.00 per 1/2 hour with a 1/2 hour minimum. We can perform a data search manually or by computer. The Heritage Data Services staff will determine the most cost-efficient method of doing your search. A cost estimate can be provided upon request. Unless otherwise specified, an invoice will accompany the data services response.

\*\*\*\*\*  
 This request is being submitted by:  fax     mail     both

Date: 9/3/03

Your Agency/Organization: Parsons Corporation

Your Name/Title: JOE BORG, Dept. Project Manager

Address: 10521 Rosehaven Street, 2d Floor

City/State/Zip: Fairfax, VA 22030

Phone/Fax: (703) 359-7652 / (703) 385-1147

Project Name/Number: US Army Reserve 88th Regional Support Command

Project is located on the following USGS 7.5 minute topographic map(s):

SEE Arc View Shapefile data for 9 Sites

If there is a program or contracting agency requiring this information, please give the name and phone number of a contact person:

Post-it® Fax Note	7671	Date	9/3/03	# of pages	2
To	Debbie Woischke	From	JOE Borg		
Co./Dept.	ODNR	Co.	PARSONS		
Phone #		Phone #			
Fax #	614-267-3096	Fax #			

The Natural Heritage Data Base contains records for the categories of species and features listed below. Check the appropriate boxes to indicate your selection.

- PLANTS:  Federal Status Only  
 State Legal Status Only  
 Rare (non-legal status)  
 All of the above

- ANIMALS:  Federal Status Only  
 State Legal Status Only  
 Rare (non-legal status)  
 All of the above

- PLANT COMMUNITIES:  All  
 Wetlands Only  
 Other Known sensitive habitats

- OTHER FEATURES:  Geologic Features  
 Breeding/Non-breeding Animal Concentrations  
 Champion Trees  
 State Nature Preserves and Natural Areas  
 State Wild, Scenic and Recreational Rivers  
 State Parks, Forests, Wildlife Areas  
 All of the above  
 Other \_\_\_\_\_

Besides name, location and status, specify any additional information you need:

\_\_\_\_\_  
\_\_\_\_\_

- The area you want searched:  study area as outlined on the map  
 study area plus 1/2 mile radius  
 study area plus 1 mile radius  
 other \_\_\_\_\_

How will the information be used:

The information will be used to characterize existing conditions and support the Natural Resources Management Program. No specific action or development project is being proposed.

The information supplied above is complete and accurate. Any material supplied by the Natural Heritage Data Base will not be published without prior written permission and without crediting the Division of Natural Areas and Preserves as the source of the material.

Your Signature \_\_\_\_\_

DNR 5203  
Rev. 9/97



**United States Department of the Interior**

**FISH AND WILDLIFE SERVICE**

Ecological Services  
 6950 Americana Parkway, Suite H  
 Reynoldsburg, Ohio 43068-4127

May 15, 2003

Joe Berg  
 Parsons  
 10521 Rosehaven Street  
 Fairfax, VA 22030

Dear Mr. Berg:

This responds to your letter of March 28, 2003 regarding Federally listed endangered or threatened species that may occur in the vicinity of various U.S. Army Reserve facilities located throughout Ohio that are administered by the 88<sup>th</sup> Regional Support Command. We would like to provide you with lists of species that occur in the Ohio Counties for which you have listed facilities and some information about the habitat of some of these species. The species specific information which we have included below is standard language that we use when a species may occur in the vicinity of a project.

**ENDANGERED SPECIES COMMENTS:** Federally list endangered (E), threatened (T), and candidate species occur in the following counties for which you have listed facilities:

<u>County</u>	<u>Species</u>
BELMONT	Indiana bat (E)
CUYAHOGA	Indiana bat (E), eastern massasauga (C), piping plover (E)
DELAWARE	Indiana bat (E), clubshell mussel (E), bald eagle (T)
ERIE	Indiana bat (E), bald eagle (T), eastern massasauga (C), Lake Erie water snake (T), lakeside daisy (T), piping plover (E, CH)
FRANKLIN	Indiana bat (E), Scioto madtom (E), eastern massasauga (C), clubshell mussel (E), northern riffleshell mussel (E)
HAMILTON	Indiana bat (E), bald eagle (T), running buffalo clover (E)
HARDIN	Indiana bat (E), copperbelly water snake (T), eastern massasauga (C)
HARRISON	Indiana bat (E), bald eagle (T)
HOCKING	Indiana bat (E), northern monkshood (T), bald eagle (T), small whorled pogonia (T), American burying beetle (E), timber rattlesnake (PC)
HOLMES	Indiana bat (E), bald eagle (T), eastern prairie fringed orchid (T)

LUCAS	Indiana bat (E), bald eagle (T), Karner blue butterfly (E), eastern massasauga (C), eastern prairie fringed orchid (T), piping plover (E) †
MARION	Indiana bat (E), bald eagle (T), eastern massasauga (C)
MONTGOMERY	Indiana bat (E), eastern massasauga (C)
RICHLAND	Indiana bat (E)
ROSS	Indiana bat (E), bald eagle (T), timber rattlesnake (PC)
SENECA	Indiana bat (E), bald eagle (T), eastern massasauga (C)
STARK	Indiana bat (E), bald eagle (T), eastern massasauga (C)
SUMMIT	Indiana bat (E), bald eagle (T), northern monkshood (T)
TRUMBULL	Indiana bat (E), bald eagle (T), eastern massasauga (C), clubshell mussel (E)
WARREN	Indiana bat (E), eastern massasauga (C), running buffalo clover (E)
WASHINGTON	Indiana bat (E), fanshell mussel (E), pink mucket pearly mussel (E)
WAYNE	Indiana bat (E), bald eagle (T), eastern massasauga (C), eastern prairie fringed orchid (T)

Status Codes

E = Endangered

T = Threatened

C = Candidate species

CH = Critical Habitat present in County

PC = Federal pre-listing conservation plan exists or being developed

**INDIANA BAT:** The proposed project lies within the range of the Indiana bat (*Myotis sodalis*), a Federally listed endangered species. Summer habitat requirements for the Indiana bat (*Myotis sodalis*) are not well defined, but the following are thought to be of importance:

1. Dead trees and snags (especially those with exfoliating bark), split tree trunk and/or branches, or cavities which may be used as maternity roosts;
2. Live trees (such as shagbark hickory) which have exfoliating bark;
3. Stream corridors, riparian areas, and upland woodlots which provide forage sites.

We recommend that if potential bat roost trees with the above characteristics are encountered in the project area, they should be saved wherever possible. If they must be cut, they should not be cut between April 15 and September 15.

If desirable trees are present and if the above time restriction is unacceptable, mist net or other surveys should be conducted to determine if bats are present. Any survey should be designed and conducted in coordination with the endangered species coordinator for this office, Ms. Angela Boyer (614-469-6923 ext. 22). The survey should be conducted in June or July, the period when peak bat populations could be expected.

**BALD EAGLE:** The project area lies within the range of the bald eagle (*Haliaeetus leucocephalus*), a Federally-listed threatened species. We recommend that you contact Mr. Mark Shieldcastle, with the

Ohio Department of Natural Resources, Division of Wildlife, (419) 898-0960, for the location(s) of the eagle nest(s) in the county. If any nests are located within ½ mile of the project site, further coordination with this office is necessary. If the nest is active, we recommend that work at the site be restricted from mid-January through July to allow pre-nesting activities, incubation, and raising of the young.

If eagle nest is present within ½ mile: In order to prevent adverse impacts to the bald eagle, we request that work at the site be restricted from mid-January through July. This will prevent disturbance of the eagles from the egg-laying period until the young fledge, which encompasses their most vulnerable times. We ask that you consult with this office before construction begins to confirm that the eagles have left the nest. Once this has been confirmed, construction may begin. Provided these guidelines are followed, this project should have no adverse effects on the bald eagle.

**SMALL WHORLED POGONIA:** The proposed project also lies within the range of the **small whorled pogonia** (*Isotria medeoloides*), a Federally-listed threatened species. Habitat requirements for this species include mid-successional mixed woods with trees 40-75 years old and 8-18" in diameter. The shrub and herb layers in which it grows are usually sparse. The pogonia often grows on gently sloping ground, with thick leaf litter. Many sites are underlain by soils with a hardpan layer that impedes the downward flow of water and leads to the formation of shallow braided channels on the ground. The soils it grows in are usually dry during most of the growing season. For the exact location of small whorled pogonia, please contact the Natural Heritage Database.

**Running Buffalo Clover:** This species can be found in partially shaded woodlots, mowed areas (lawns, parks, cemeteries), and along streams and trails. Running buffalo clover requires periodic disturbance and a somewhat open habitat to successfully flourish, but cannot tolerate full-sun, full-shade, or severe disturbance.

The proposed project lies within the range of the **running buffalo clover** (*Trifolium stoloniferum*), a Federally listed endangered species. This species can be found in partially shaded woodlots, mowed areas (lawns, parks, cemeteries), and along streams and trails. Running buffalo clover requires periodic disturbance and a somewhat open habitat to successfully flourish, but cannot tolerate full-sun, full-shade, or severe disturbance. If this type of habitat is present within the proposed project area, we recommend that a survey for the running buffalo clover be initiated. The best time for such a survey is May or June, when the plant is in bloom.

**FANSHELL:** The proposed project lies within the range of the fanshell mussel and pink mucket pearly mussel, Federally listed endangered species. These species are known to occur in the Muskingum River, close to the mouth of Meigs Creek. They inhabit areas with a sand or gravel substrate and also prefer areas with riffles. It is possible that these species occur in or near the project area. We recommend that a survey for mussels within the project area and for 500 feet downstream of the site be conducted to determine if these species are present. If mussels are found within the project area, we recommend that construction occur 500 to 1000 feet upstream of the mussels, or 50 feet downstream of them. In addition, while the project is being constructed, silt screens should be utilized to minimize disturbance to the mussels. Surveys for these mussels can be arranged by contacting Dr. Michael Hoggarth (Otterbein University) at (614) 823-1667, or Tom Watters (Ohio Biological Survey) at (614) 292-6170.

Although records for the clubshell mussel in this area of the Hocking River are historic, potential habitat for the species does exist in this area. Improved water quality in the Hocking River has also increased the probability that the clubshell may be present here. Since mussel colonization only takes from 3 to 5 years, and since no surveys have been conducted in this area for 12 years, we recommend that a survey for mussels within the project area and for 500 feet downstream of the furthest site be conducted to determine if this species is present. If mussels are found within the project area, we recommend that

Construction occur 500 to 1000 feet upstream of the mussels, or 50 feet downstream of them. In addition, while the project is being constructed, silt screens should be utilized to minimize disturbance to the mussels. Surveys for these mussels can be arranged by contacting Dr. Michael Hoggarth (Otterbein University) at (614) 823-1667, or Tom Watters (Ohio Biological Survey) at (614) 292-6170. As an alternative, the mussel survey would not be required if the project utilized directional drilling under the Hocking River at the four crossing points instead of common trench crossings.

**AMERICAN BURYING BEETLE:** The project area(s) lies within the range of the American burying beetle (*Nicrophorus americanus*) a Federally listed endangered species. This insect is a "generalist" as far as habitat preference is concerned, meaning that it can be found in grasslands, open woodlands and brushlands. Therefore, we recommend that you survey the proposed project area(s) to determine if suitable habitat for this beetle is present. Mr. George Keeney (The Ohio State University, Department of Entomology, 1735 Neil Avenue, Columbus, Ohio 43210, phone 614/292-9634) is familiar with the habitat requirements of this beetle. He also has conducted surveys for this beetle. We recommend that you contact Mr. Keeney or other recognized experts, to determine if the species or its habitat exists in the project area(s).

**COPPERBELLY WATER SNAKE:** The project also lies within the range of the Copperbelly water snake (*Nerodia erythrogaster neglecta*), a Federally-listed threatened species. Habitat requirements for this species include lowland swamps or other warm, quiet waters (both seasonal and permanent), adjacent wooded migration corridors, adjacent upland slopes with underground hibernation sites below the frost line, and streams or rivers. If suitable habitat for this species is located on the site, please contact this office prior to site construction.

**KARNER BLUE:** The proposed project lies within the range of the Federal endangered Karner blue butterfly (*Lycaeides melissa samuelis*). The Toledo Express Airport has been proposed as a possible reintroduction site for this species due to the presence of *Lupinus perennia*, an important plant in the life cycle of the butterfly. We encourage the conservation of native lupine plants wherever possible. We also encourage that native lupine plants be incorporated into site restoration efforts, green areas, and other project designs to benefit the Karner blue.

**NORTHERN MONKSHOOD:** This project lies within the range of the Federally threatened northern monkshood (*Aconitum noveboracense*). The plant is found on cool, moist, talus slopes or shaded cliff faces in wooded ravines. We recommend that the project location be examined to determine if suitable habitat for the monkshood is present. If suitable habitat is found, surveys may be necessary to determine if the plant is present.

Two divisions of the Ohio Department of Natural Resources, the Division of Wildlife (614-265-6300) and the Division of Natural Areas and Preserves (614-265-6472), maintain lists of plants and animals of concern to the State of Ohio. If you have not already done so, you may wish to contact each of these agencies to obtain site-specific information about species of state concern.

If you have questions or we may be of further assistance in this matter please contact Mr. Bill Kurey of this office at 614-469-6923 ext. 14.

Sincerely,



Kenneth Lammers  
Acting Supervisor

# APPENDIX C

## CULTURAL RESOURCES BACKGROUND INFORMATION

A variety of laws and regulations; the National Historic Preservation Act (NHPA) of 1966 as amended in 2000; the Archeological and Historic Preservation Act (AHPA) of 1974; the Archaeological Resources Protection Act (ARPA) of 1979, and US Army Regulation (AR) 200-4 protect identified historic properties. The Advisory Council on Historic Preservation further guides treatment of archaeological and architectural resources on historic preservation regulations and the protection of historic properties (36 CFR 800).

Since the proponent of the proposed action is the DoD and involves Federal funding and Federal permitting, licensing or approval (36 CFR 800.16(y)), this project is under the purview of Section 106 of the NHPA of 1966, as amended. Identification of archaeological sites and historic properties was conducted according to the requirements of 36 CFR 800 for Section 106 of the NHPA, and initiation of the process was or will be implemented with the Ohio SHPO. As stipulated in Section 800.8, Section 106 can be coordinated with the requirements of NEPA. Preparation of an EA or an EIS can be sufficient in fulfilling the required determination of effects for Section 106 compliance.

The following cultural resources background information provides a summary of data developed by the Army in their effort to ensure compliance with appropriate process. Included in this information are:

- Fort Hayes Cultural Resources background information bibliography on page C-2;
- A copy of the Fort Hayes Memorial US Army Reserve Center, Columbus, Ohio 1970 National Register of Historic Places inventory nomination form is located on pages C-2 through C-9;
- An excerpt from the 1998 *Ohio Section 110 Inventory* prepared for the Army by the Fort McCoy Archaeology Laboratory, Directorate of Training and Mobilization can be found on pages C-10 through C-45. This excerpt contains only those sections of the report that pertain to the Fort Hayes Memorial USARC;
- An excerpt containing information about Building 118 from the March, 2005 Fort Hayes National Historic District, Columbus, Ohio Condition Assessment, Stabilization, and Layaway Plan Update is located on pages C-46 through C-70;
- a copy of the consultation letter forwarded to Federally-recognized Indian Tribes associated with the project is located in Appendix A – Agency Coordination;
- A copy of the letter used by the Army to forward the proposed Building 118 Historic Preservation Covenants to the SHPO, along with a copy of the proposed Historic Preservation Covenants, and the Ohio SHPO's response are also in Appendix A – Agency Coordination.

## C.1 Fort Hayes Cultural Resources Bibliography

Brockington and Associates and S. Harris & Company (Brockington and Harris)

2005 *Fort Hayes National Historic District, Columbus, Ohio, Condition Assessment, Stabilization and Layaway Plan Update*. Submitted to the Mobile District, US Army Corps of Engineers and Prepared for the United States Army Reserve, 88<sup>th</sup> Regional Readiness Command (RRC), Fort Snelling, MN, by Brockington and Associates, Inc., Norcross, Georgia and S. Harris & Company, Philadelphia, PA.

Fort McCoy Archaeology Laboratory (Fort McCoy)

1998 *Ohio Section 110 Inventory*. Prepared by the Fort McCoy Archaeology Laboratory, Directorate of Training and Mobilization, Fort McCoy, WS, for the 88<sup>th</sup> Regional Support Command (RSC), Environmental Division, Fort Snelling, MN.

Gardner, Jeffrey W.

2005 *Phase I Archaeological Survey of Two Tracts (OH013/39920 and OH111/39220) at Fort Hayes, Columbus (Mifflin Township), Franklin County, Ohio*. Report prepared for the US Army Corps of Engineers, Mobile District and the US Army Reserve 88<sup>th</sup> Regional Readiness Command, Fort Snelling, MN.

Gardner, Jeffrey W.

2006 *Phase II Archaeological Survey of Two East Lawn Triangle and Building 103 Loci Archaeological Site 33FR2304 Fort Hayes, Franklin County, Ohio*. Report prepared for the US Army Corps of Engineers, Mobile District and the US Army Reserve 88<sup>th</sup> Regional Readiness Command, Fort Snelling, MN.

US Department of the Interior

2000 *Condition Assessment, Stabilization and Layaway Plan, Fort Hayes National Historic District, Columbus, Ohio*. Prepared for the United States Army Reserve 88<sup>th</sup> Regional Support Command (RSC) Directorate of Engineering, Environmental Division Fort Snelling, MN. Prepared by the US Department of the Interior, National Park Service, Historic Preservation Training Center, Frederick, MD.

## **C.2 Fort Hayes Memorial USARC 1970 National Register of Historic Places Inventory Nomination Form**





Form 10-220a  
(2-6-79)

UNITED STATES DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE  
NATIONAL REGISTER OF HISTORIC PLACES  
INVENTORY - NOMINATION FORM

(Continuation Sheet)

STATE	Ohio
COUNTY	Franklin
FOR NPS USE ONLY	
ENTRY NUMBER	DATE
76-134- <del>000</del> 003	9/26/70

7. The value of land and improvements of Fort Hayes was locally estimated to be \$5.8 million in 1966.

The post was used for arsenal purposes until after the Civil War when it became an army recruiting depot called Columbus Barracks. Prior to World War I, Columbus Barracks was an important center of troop distribution. During this war, regular army recruits were processed here and wooden barracks, a few of which still remain, were built. In 1922, under orders of General J. J. Pershing, the post was formally named for Civil War hero and 19th President of the U. S., Rutherford B. Hayes. The fort was used to capacity in World War II and since. In 1965 Fort Hayes was declared excess by the Department of Defense, when the II Corps was moved from the site. Present plans call for the abandonment of the fort by the Ohio National Guard and its disposition in 1972.



**SIGNIFICANCE**

PERIOD (Check One or More as Applicable)

<input type="checkbox"/> Pre-Columbian	<input type="checkbox"/> 18th Century	<input type="checkbox"/> 19th Century	<input checked="" type="checkbox"/> 20th Century
<input type="checkbox"/> 15th Century	<input type="checkbox"/> 17th Century	<input checked="" type="checkbox"/> 17th Century	

SPECIFIC VALUES OR Attributes and Qualities

AREAS OF SIGNIFICANCE (Check One or More as Applicable)

<input type="checkbox"/> Archaeology	<input type="checkbox"/> Education	<input type="checkbox"/> Railroad	<input type="checkbox"/> Urban Planning
<input type="checkbox"/> Paleontology	<input type="checkbox"/> Engineering	<input type="checkbox"/> Religious/Art	<input type="checkbox"/> Other (Specify)
<input type="checkbox"/> Historic	<input type="checkbox"/> Military	<input type="checkbox"/> Industry	_____
<input type="checkbox"/> Agriculture	<input type="checkbox"/> Science	<input type="checkbox"/> Science	_____
<input checked="" type="checkbox"/> Architecture	<input type="checkbox"/> Technology	<input type="checkbox"/> Industry	_____
<input type="checkbox"/> Art	<input type="checkbox"/> Transportation	<input type="checkbox"/> International	_____
<input type="checkbox"/> Commerce	<input type="checkbox"/> Literature	<input type="checkbox"/> Historic	_____
<input type="checkbox"/> Communication	<input checked="" type="checkbox"/> Military	<input type="checkbox"/> Trade	_____
<input type="checkbox"/> Construction	<input type="checkbox"/> Music	<input type="checkbox"/> Transportation	_____

STATEMENT OF SIGNIFICANCE

Fort Hayes is the oldest federal military installation in continuous use in Ohio. The post retains much of its nineteenth century architectural and military atmosphere, and possesses for greater Columbus a prime environmental area well worthy of preservation for compatible, functional purposes.

The main, arched building is the oldest substantial, permanent U. S. Military structure in Ohio and is believed to be the sole surviving structure designed and built by the notable T. C. Bradford in the nation.



**2. DESCRIPTION**

CONDITION	<input type="checkbox"/> Excellent	<input type="checkbox"/> Good	<input checked="" type="checkbox"/> Fair	<input type="checkbox"/> Deteriorated	<input type="checkbox"/> Poor	<input type="checkbox"/> Unassessable
	<input checked="" type="checkbox"/> Altered			<input type="checkbox"/> Unaltered	<input type="checkbox"/> Missing	

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

Fort Hayes is a military "island" close to downtown Columbus. The post was established by the U. S. War Department in 1863 under a Congressional authorization of July, 1861 to establish an armory and arsenal for the manufacture and storage of war materiel.

The site, bounded by Harbor Road, Forest Alley, Howard Street, and land owned by the Penn Central Railroad, was selected by General C. P. Buckingham. The initial buildings were designed and constructed under the supervision of Colonel T. C. Bradford, 1863-1865. Later, buildings were constructed to army specifications.

Individual post structures of architectural and historical merit include:

**Building 118:** Canteen, built late 1890's and used as a guard post, post office (1905), recruiting station, sub-post exchange, and headquarters of the provost marshal. The building has a neat dentil course as a part of the wood cornice.

**Building 101:** Originally the administration building, it was built in 1910. It served as the office of the commanding general of the 5th Service Command and now is serving as Ohio National Guard offices.

**Building 117:** Post exchange and gym, built 1907. It was altered in 1929 to accommodate bowling lanes. The structure is of sturdy and pleasing construction, its brick exterior recently sandblasted and tuckpointed.

**Building 110:** Built 1894 as the general mess to feed 700 men. Converted to XI Corps headquarters in 1957.

**Building 84:** Storehouse and office building of arsenal design with coarse architectural detail. The structure has served for courts martial.

**Building 103:** The guard house built to hold 65 prisoners. An addition was made to the structure in 1900. The most recent use of the building is for a post exchange.

**Building 70:** The hospital, built 1908, contained 24 beds. Later, the building was remodeled for a barracks. Later, the building has served as the post dispensary and for offices.

**Family Quarters:** Eleven homes for single and double occupancy were constructed beginning 1894. Prior, this section of the post was the commanding officer's garden.

**Building 19:** Commanding officer's residence, built 1890-95. Extensive alterations, inside and out, have been performed on the structure for the convenience of succeeding occupants.

**Bandstand:** Built in the 1890's, this structure has had its ornate Victorian trim removed.

**Building 62:** The main post building, the Arsenal, built 1864. Tuscan Revival in style, the three-story brick structure has as its focal feature a five-story tower which originally contained the stairway and hoisting apparatus for elevators. For many years the tower has been popularly called the "shot tower," without historical justification. The exterior of the building has in recent years been sandblasted and tuckpointed, and is used for National Guard training purposes. The structure has been in almost continuous military use. It has not been altered except for the addition of two fire escapes on the front elevation.

SEE INSTRUCTIONS

Form NP-280 (July 1987) UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

### NATIONAL REGISTER OF HISTORIC PLACES INVENTORY - NOMINATION FORM

(Type all entries - complete applicable sections)

STATE: <b>Ohio</b>	
COUNTY: <b>Franklin</b>	
FOR NPS USE ONLY	
ENTRY NUMBER <b>7133-0000</b>	DATE <b>1/21/76</b>
<b>8099</b>	

**1. NAME**

NAME OF HISTORIC PLACE:  
**Fort Hayes**

**2. LOCATION**

STREET AND NUMBER:  
**Cleveland Avenue and Interstate 71**

CITY OR TOWN:  
**Columbus**

STATE:  
**Ohio**

CODE: **36** COUNTY: **Franklin** CODE: **049**

**3. CLASSIFICATION**

CATEGORY (Check One)	OWNERSHIP	STATUS	ACCESSIBLE TO THE PUBLIC
<input checked="" type="checkbox"/> Dwelling <input type="checkbox"/> Site <input type="checkbox"/> Other	<input checked="" type="checkbox"/> Public <input type="checkbox"/> Private <input type="checkbox"/> Not	<input type="checkbox"/> Occupied <input type="checkbox"/> Unoccupied <input type="checkbox"/> Preservation work in progress	<input checked="" type="checkbox"/> Yes: <input type="checkbox"/> Restricted <input type="checkbox"/> Unrestricted <input type="checkbox"/> No

PRESENT USE (Check One or More as Applicable)

<input type="checkbox"/> Agricultural	<input type="checkbox"/> Commercial	<input type="checkbox"/> Park	<input type="checkbox"/> Transportation	<input type="checkbox"/> Cemetery
<input type="checkbox"/> Cultural	<input type="checkbox"/> Industrial	<input type="checkbox"/> Private Residence	<input type="checkbox"/> Other (Specify)	
<input type="checkbox"/> Educational	<input checked="" type="checkbox"/> Military	<input type="checkbox"/> Religious		
<input type="checkbox"/> Entertainment	<input type="checkbox"/> Storage	<input type="checkbox"/> Scientific		

**4. OWNER OF PROPERTY**

OWNER'S NAME:  
**Department of Defense**

STREET AND NUMBER:  
**Washington**

CITY OR TOWN:  
**Washington**

STATE:  
**D. C.**

CODE: **08**

**5. LOCATION OF LEGAL DESCRIPTION**

COURTHOUSE, REGISTRY OF DEEDS, ETC.:  
**Judge Advocate General**

STREET AND NUMBER:  
**Washington**

CITY OR TOWN:  
**Washington**

STATE:  
**D. C.**

CODE: **08**

**6. REPRESENTATION IN EXISTING SURVEYS**

TITLE OF SURVEY:  
**Ohio Historic Survey, Phase 1**

DATE OF SURVEY: **1967**

DEPOSITORY FOR SURVEY RECORDS:  
 Federal  State  County  Local

**Ohio Historical Society**

STREET AND NUMBER:  
**1813 N. High St.**

CITY OR TOWN:  
**Columbus**

STATE:  
**Ohio**

CODE: **36**

STATE: Ohio

COUNTY: Franklin

FOR NPS USE ONLY

ENTRY NUMBER

DATE

### **C.3 Excerpts from the 1998 Ohio Section 110 Inventory**

**FORT McCOY  
CULTURAL RESOURCES  
MANAGEMENT SERIES**

**Reports of Investigation No. 16  
Ohio Section 110 Inventory Volume I  
December 1999**



Fort McCoy Archaeology Laboratory  
Directorate of Training and Mobilization  
Fort McCoy, WI 54656-5162

**Ohio Section 110 Inventory  
Volume I**

Archaeological Resource Management Series  
Reports of Investigation Number 16

Prepared for:

U.S. Army Reserve Command  
88<sup>th</sup> Regional Support Command  
Environmental Management Division  
Fort Snelling  
Minneapolis, Minnesota

*Prepared by:*

Heather L. Spencer  
Fort McCoy Archaeology Laboratory  
Directorate of Training and Mobilization  
Fort McCoy, Wisconsin  
December 1998

*Editorial Review:*

Andrea Den Otter  
Fort McCoy Archaeology Laboratory  
December 1999

THIS DOCUMENT CONTAINS ARCHAEOLOGICAL SITE INFORMATION AND IS INTENDED FOR MANAGEMENT AND PRESERVATION PURPOSES AND SHOULD NOT BE DISTRIBUTED TO THE PUBLIC WITHOUT PERMISSION FROM THE OHIO STATE HISTORIC PRESERVATION OFFICER AND THE DEPARTMENT OF THE ARMY.

*Cover: LT Jacob Parrott USARC Reserve Center*

## National Historic Preservation Act of 1966, as Amended

### Section 110

"In accordance with subsection 101(F) of the National Historic Preservation Act, the Secretary of the Interior in consultation with the Advisory Council on Historic Preservation, has developed the following guidelines for carrying out Federal agency responsibilities under Section 110 of the Act...Federal Agencies should follow these guidelines in establishing, monitoring, reviewing, and evaluating their programs for compliance with Section 110 of the Act. State Historic Preservation Officers should refer to these guidelines when providing assistance to Federal agencies under Sections 101(b)(3)(E) and (F) of the Act. The advisory Council on Historic Preservation [Council] will use these guidelines, as applicable, and recommend their use to Federal agencies, State Historic Preservation Officers, and others in agreements executed pursuant to Section 106 of the Act and 36 CFR Part 800. The Council will also use these guidelines in its review of Federal agency programs under Section 202(a)(6) of the Act...*Section 110(a)(1)*: "The heads of all Federal agencies shall assume responsibility for the preservation of historic properties which are owned or controlled by such agency. Prior to acquiring, constructing, or leasing buildings for purposes of carrying out agency responsibilities, each Federal agency shall use, to the maximum of the extent feasible, historic properties available to the agency. Each agency shall undertake, consistent with the preservation of such properties and the mission of the agency and the professional standards pursuant to Section 101(f) any preservation, as may be necessary to carry out this section" *Section 110(a)(2)*: "With the advice of the Secretary and in cooperation with the State Historic Preservation Officer for the State involved, each Federal agency shall establish a program to locate, inventory, and nominate to the Secretary all properties under the agency's ownership or controlled by the agency, that appear to qualify for inclusion on the National Register in accordance with the regulations promulgated under Section 110(a)(2)(A). Each Federal agency shall exercise caution to assure that any such property that might qualify for inclusion is not inadvertently transferred, sold, demolished, substantially altered, or allowed to deteriorate significantly. *Section 110(b)*: "Each Federal agency shall initiate measures to assure that where, as a result of Federal action or assistance carried out by such agency, a historic property is to be substantially altered or demolished, timely steps are taken to make or have made appropriate records, and that such records then be deposited, in accordance with Section 101(a), in the Library of Congress or with such other appropriate agency as may be designated by the Secretary, for future use and reference" *Section 100(c)*: "The head of each Federal Agency shall, unless exempted under Section 214, designate a qualified official to be known as the agency's "preservation officer who shall be responsible for coordinating that agency's activities under the Act. Each Preservation Officer may, in order to be considered qualified, satisfactorily complete and appropriate training program established by the Secretary under Section 110(g)." *Section 100(d)*: "Consistent with the agency's mission and mandates, all Federal agencies shall carry out agency programs and projects (including those under which any Federal assistance is provided for any federal license, permit, or other approval is required) in accordance with the purposes of this Act and, give consideration to programs and projects which will further the purposes of this Act." *Section 110(e)*: "The Secretary shall review and approve the plans for transferees of surplus federally owned historic properties not later than ninety days after his receipt of such plans to ensure that the prehistorical, historical, architectural, or culturally significant values will be preserved or enhanced. *Section 110(f)*: "Prior to the approval of any Federal undertaking which may directly and adversely affected any National Historic Landmark, the head of the responsible Federal agency shall, to the maximum extent possible, undertake such planning and actions as may be necessary to minimize harm to such landmark, and shall afford the Advisory council on Historic Preservation a reasonable opportunity to comment on the undertaking" *Section 110(g)*: "Each Federal agency may include the costs of preservation activities of such agency under this Act as eligible project costs in all undertakings such agency or assisted by such agency. The eligible project costs may also include amounts paid by a federal agency to any state to be used in carrying out, such preservation responsibilities of the federal agency under this Act, and reasonable costs may be charged to Federal licensees and permits as a condition to the issuance of such license or permit." *Section 110(h)*: "The Secretary shall establish an annual preservation awards program under which he may make monetary awards in amounts not to exceed \$1,000 and provide citations for special achievements to officers and employees of Federal, State, and certified local governments in recognition of their outstanding contributions to the preservation of historic resources. Such programs may include the issuance of annual awards by the President of the United States to any citizen of the United States recommended for such award by the Secretary;" *Section 110(i)*: "Nothing in this Act shall be construed to require the preparation of an environmental impact statement where such a statement would not otherwise be required under the National Environmental Policy Act 1969, and nothing in this Act shall be construed to provide exemption from any requirement respecting the preparation of such a statement under such Acts." *Section 110(j)*: "The secretary shall promulgate regulations under which the requirements of this section may be waived in whole or in part in the event of a major natural disaster or an imminent threat to national security."

## Executive Summary

In 1997, the Fort McCoy Archaeology Laboratory, Directorate of Training and Mobilization, Fort McCoy, Wisconsin, contracted with the 88<sup>th</sup> Regional Support Command (RSC) to conduct a historic properties inventory of all U.S. Army Reserve Centers (USARC) located within the state of Ohio. The inventory was accomplished in accordance with the provisions of Section 110 of the National Historic Preservation Act (NHPA). A total of 40 USARC facilities were inventoried during this study and all buildings at each of the facilities were assessed for their eligibility to the National Register of Historic Places (NRHP).

The purpose of the *Ohio Section 110 Inventory* is to provide the 88<sup>th</sup> RSC with a complete inventory of the buildings and features located on individual Reserve Centers and evaluate their potential eligibility for nomination to the NRHP. This report is an inventory of properties controlled or leased by the 88<sup>th</sup> RSC and a record of all buildings and structures on each USARC facility. This report provides a historical background of each facility, as well as a description of each building at the facility. The report also provides comprehensive assessments of NRHP eligibility for individual properties. The report's format is designed to permit facility managers to remove individual sections regarding their facility from the report.

<p><b>Columbus, Ohio</b> Former AMSA #56 &amp; former 535th Military Police Battalion Headquarters</p>	
<p><b>Identification Information:</b></p>	<p>Identification Number: OH013/39220<sup>1</sup> Former AMSA #56 &amp; former 535th Military Police Battalion Headquarters Fort Hayes Historic District 530 Jack Gibbs Blvd., Columbus, Franklin County, Ohio 43215-1975 Telephone Number: (614) 692-5451 Southeast Columbus Quadrangle, Ohio, USGS 7.5 Minute Series, T5N R18W, Section 9 (Figure 132) UTM: Z17, 330048E, 4426774N Present Owner/Occupant: The facility is owned by the US Government and controlled by the 88<sup>th</sup> RSC. Buildings associated with former AMSA #56 has been declared excess by the 88<sup>th</sup> RSC DSCEN Real Property Division.<sup>2</sup> Building 118, associated with former 535th Military Police Battalion Headquarters, is currently part of the Fort Hayes Memorial USARC.</p>
<p><b>Setting and Landscape:</b></p>	<p>Former AMSA #56 is located in nine historic buildings included in the Fort Hayes National Historic District (NHD), a historic army installation located in an industrial and commercial district in Columbus, Ohio. Former AMSA #56 is placed on approximately 4.47 acres of land (CO00X) in the north and central section of the Fort Hayes NHD. Former 535<sup>th</sup> Military Police Battalion Headquarters was located in a historic guard house (Building 118) positioned along the southern boundary of the Fort Hayes NHD. Building 118 is currently part of the 10.78 acres of land associated with the Fort Hayes Memorial USARC. Historic buildings associated with former AMSA #56 and the Fort Hayes Memorial USARC are discussed in this section of the report due to their inclusion in the Fort Hayes NHD. The Columbus Public School District owns the remaining property included in the Fort Hayes NHD (Figure 133).<sup>3</sup></p>
<p><b>Archaeological Resources:</b></p>	<p>An archaeological record search at the Ohio State Historic Preservation Office (SHPO) did not identify any documented archaeological sites within a one-mile radius of the Fort Hayes NHD. The buildings on the Fort Hayes have been listed on the NRHP as a national historic district since 1970.<sup>4</sup></p>
<p><b>Historical Information:</b></p>	<p>Congress approved the creation of Fort Hayes in July 1861. Originally named the Columbus Arsenal, the facility was designed to replace the Ohio</p>

Militia State Arsenal as the primary armory and dispatch center for ordnance issued to Ohio troops during the Civil War.<sup>5</sup> In 1863, the US Government purchased 70 acres of land in Columbus, Ohio, and Captain J.W. Todd began constructing a railroad spur to the facility.<sup>6</sup> In 1864, Captain T.C. Bradford replaced Todd as Post Commander and constructed a series of 12 Italian (Tuscan) Revival buildings on the facility.<sup>7</sup> By 1865, the Columbus Arsenal was fully activated as the primary supplier of ammunition and ordnance used by Ohio troops.<sup>8</sup> After the war, the Columbus Arsenal was retained as part of the Ordnance Corps until 1875, when it was transferred to the General Recruiting Service and renamed the Columbus Barracks. Activities at the facility changed from maintaining ordnance to organizing and training volunteer troops in the state of Ohio.<sup>9</sup> In 1894, use of the facility was transferred to the US Army Department of the East who garrisoned it with members of the 17<sup>th</sup> Infantry Regiment in Ohio.<sup>10</sup> By 1901, the Columbus Barracks was enlarged with new buildings and an additional eight acres of land.

The facility was renamed the Columbus Recruiting Depot in 1905,<sup>11</sup> and was used as the primary induction and training center for volunteer and conscripted recruits mustered in Ohio during World War I. The facility became an administrative headquarters for the 10<sup>th</sup> Infantry in 1922, and was renamed Fort Hayes in honor of the former Ohio governor and nineteenth President of the United States, Rutherford B. Hayes.<sup>12</sup>

When the United States entered World War II, Fort Hayes was again used as the primary induction center for Ohio troops participating in the conflict.<sup>13</sup> During the post-war era, Fort Hayes was utilized by various governmental and private agencies including the Ohio National Guard, the Adjutant General of Ohio, and the U.S. Public Health Service.<sup>14</sup> In 1968, Fort Knox assumed control of Fort Hayes, and allowed the 83<sup>rd</sup> Army Reserve Command (ARCOM) to establish its headquarters on the facility to administer the training of Army Reserve units in Ohio.<sup>15</sup> In 1970, Fort Hayes was placed on the NRHP as a national historic district (NHD) because it was “the oldest federal military installation in continuous use in Ohio...[and] retains much of its nineteenth century architectural and military atmosphere.”<sup>16</sup> Later that year, the U.S. Army General Services Administration (GSA) declared that,

“A portion of Fort Hayes [49.18 acres]...has been determined to be surplus property and available for disposal...[and that] approximately 28.59 acres of the installation are being retained for further Federal requirements.”<sup>17</sup>

This retained the property and buildings on the north and west sides of Fort Hayes NHD for use by the 83<sup>rd</sup> ARCOM (Figure 133). The remaining south and east sides of property were subsequently sold to the Columbus Public

	<p>School District in 1971.<sup>18</sup> In 1976, approximately 28 acres in the north of the Fort Hayes NHD were designated as part of a new AMSA shop (Figure 133). Building 102, constructed as a riding stable in 1895, was converted into a maintenance shop for AMSA #56 and the immediate area, including Buildings 40, 67, 100, 102, 103, 104, 106, 106, 107, were fenced off from the rest of the facility.<sup>19</sup></p> <p>In 1984, the GSA declared all property and buildings owned by the US Government at the Fort Hayes NHD as “excess” property and an unsuccessful attempt was made to sell them.<sup>20</sup> In 1991, the Columbus Public School District purchased the buildings and property along the western edge of the Fort Hayes NHD from the Fort Knox, Directorate of Public Works (Figure 133).<sup>21</sup> This reduced the amount of land owned by the US Government to approximately 4.47 acres surrounding AMSA #56 in the north and central sections of Fort Hayes NHD. In 1996, the 88th RSC gained control of land and buildings owned by the U.S. Government in the Fort Hayes NHD.<sup>22</sup></p>
<p><b>Security:</b></p>	<p>Security measures at former AMSA #56 (Buildings 40, 67, 100, 102, 103, 104, 105, 106, 107, Loading Ramp, &amp; T-76) include chain-link fencing topped with barbed wire. High intensity lighting is also present to light the parking areas for both military and civilian vehicles. Building 118 (former 535<sup>th</sup> Military Police Battalion Headquarters) has no exterior security elements.</p>
<p><b>Architectural Information:</b></p>	<p>Former AMSA #56 and former 535<sup>th</sup> Military Police Battalion Headquarters consists of ten buildings constructed in the Italian Revival, Italian Renaissance, and utilitarian styles. In 1861, the U.S. Congress authorized construction of an arsenal in Columbus for the purpose of organizing, training, and outfitting troops organized in Ohio. Captain J.W. Todd undertook the initial design of the facility in 1863, and was completed two years later by Captain T.C. Bradford.<sup>35</sup> By late 1865, Bradford had constructed 12 Italian (Tuscan) Revival buildings for the manufacture of ammunition and maintenance of weapons distributed to Ohio troops during the war.<sup>36</sup> Ornamental landscaping with trees, shrubs, and grassy esplanades were added to improve the aesthetic quality of the post in 1866.<sup>37</sup></p> <p>A second building phase occurred in 1896 at the Columbus Barracks, as the United States prepared to enter the Spanish-American War. Construction activities centered on enlarging existing buildings and constructing new barracks, officers quarters, a reception center, a mess hall, a drill hall, and guard house to accommodate Ohio troops participating in the war.<sup>38</sup> The</p>

	<p>facility was wired for electricity in 1908<sup>39</sup> and general maintenance of buildings at Fort Hayes continued through the early twentieth century.</p> <p>In 1914, a series of new buildings were constructed in anticipation of United States involvement in World War I.<sup>40</sup> Modifications were also made to existing buildings to reflect the adaptation of new technologies. For example, many horse stables on the facility were remodeled into automobile repair shops as the US Army changed its basic mode of transportation.<sup>41</sup> As in previous conflicts, the Columbus Recruiting Depot functioned as the primary induction and training facility in Ohio. A series of streets were constructed on Fort Hayes in 1933, by the Civilian Conservation Corps (CCC) as part of government sponsored relief projects in Ohio during the Great Depression.<sup>42</sup></p> <p>Fort Hayes has been listed on the NRHP since 1970, and all buildings constructed around the year 1900 (Building 40, Building 102, Building 103, Building 105, Building 106, and Building 107) are considered to be contributing elements to the historic integrity of the Fort Hayes NHD.<sup>43</sup> From August to November 1997, members of the Fort McCoy Archaeology Laboratory conducted a Section 110 Inventory of all Ohio USARC facilities including former AMSA #56 &amp; former 535<sup>th</sup> Military Police Battalion Headquarters located on the Fort Hayes NHD. During the on-site investigation, Fort McCoy investigators found that all the buildings associated with former AMSA #56 appeared to be in a serious state of deterioration. Building 118, used as the former headquarters for the 535<sup>th</sup> Military Police Battalion, was modified from its original design between ca. 1970-1997, altering the original nineteenth century façade of the building. The buildings at former AMSA #56 and former 535<sup>th</sup> Military Police Battalion Headquarters are considered contributing factors to the Fort Hayes NHD.</p>
<p><b>Building Descriptions:</b></p>	<p><b>Building 40 (CO040)<sup>44</sup></b></p> <p>Building 40 (comprised of Buildings 40, 41, &amp; 42) was originally constructed ca. 1903 for use as officers quarters.<sup>45</sup> The building features elements of the Italian Renaissance style. The south facing building is a two story rectangular building that rests upon a rusticated stone foundation with red brick walls.<sup>46</sup> A cut-stone water table is located on the top of the stone foundation. The building contains three individual living apartments. Each set of quarters has a front and rear doorway. Ghost lines on the exterior of the building suggest that a full width stylistic porch, which has since been removed and was originally located on the south side of the building (Figure 134).<sup>47</sup> Ghost lines on the north side of the building suggest that it contained three small porches, servicing the individual apartments, consisting of a wooden pediment hoods and steps (Figure 135).<sup>48</sup> A rectangular stone lintel is located over each</p>

damaged and several of the rafters are exposed.<sup>85</sup> A mid-slope brick chimney with a chimney cap is located on the east side of the roof.<sup>86</sup>

#### **Building 107 (CO107)**

Building 107 functioned as a vehicle maintenance shop for AMSA #56. Constructed in 1898, it is a one-story rectangular building with Italian Renaissance style architectural elements.<sup>87</sup> The building contains gray brick walls that rest upon a dressed stone foundation.<sup>88</sup> A vertical gray brick stringcourse is located around the perimeter of the building near the roof eave and interconnects with lintels located over the doors and windows (Figure 194). A pair of wooden pedestrian doors with a three-light transom and a vertical, brick arch lintel is located on the south side of the building. A second entrance containing a metal overhead retractable bay door appears to have been added to the south wall after the original construction (Figure 195).<sup>89</sup> A pair of small metal doors (approximately two feet in height) with a round vertical brick arch lintel and a plain stone lug sill is located near the foundation on the northeast corner of the building. A series of tall rectangular six-over-six-light double-hung windows with round, brick arch lintels and plain stone lug sills are located around the perimeter of the building (Figure 196).<sup>90</sup> A damaged-hipped roof with exposed rafters covers the building (Figure 197).<sup>91</sup> The remnants of gutters are evident along roof eaves on the east and west sides of the building (Figure 201).<sup>92</sup>

#### **Building 118 (CO118)**

Building 118 was originally constructed as a gatehouse for the Columbus Barracks. It subsequently functioned as a guardhouse and later an administrative office for the former 535th Military Police Battalion Headquarters. Building 118 is currently considered to be part of the Fort Hayes Memorial USARC. Constructed in ca. 1898, it is a one-story modified T-shaped building with Italian Renaissance style architectural elements.<sup>93</sup> The building consists of red brick walls that rest upon a course rubble and rusticated stone foundation. A porch is located along the south side of the building at the location of the original entrance that consisted of two pedestrian doors that are currently block with bricks (Figures 202 & 203). Four Tuscan columns support the half-hipped wooden tongue and groove roof that covers the porch. The porch floor is covered with an out-of-period glazed tile (Figure 204). A historic period hanging lamp is mounted on the interior porch ceiling (Figure 205).

The current entrance is located on the east side of the building and consists of a metal pedestrian door cast with six inset panels, a transom, and sidelights (Figure 206).<sup>94</sup> An out-of-period metal hood awning covers the entryway. A series of tall rectangular one-over-over light double-hung windows with plain stone lug lintels and plain stone lug sills are located around the perimeter of the building (Figure 207). A small rectangular one-

	<p>over-one light double-hung window is located on the north side of the building (Figure 208).<sup>95</sup> Metal hood awnings are located above the windows on the east side of the building. An entablature with dentils and an undecorated frieze are located under the roof around the perimeter of the building (Figure 210).<sup>96</sup> A modified-hipped roof with slight overhanging eaves covers the building. An out-of-period skylight has been added at the peak of the roof. A mid-slope brick chimney with a decorative chimney cap is located on the south side of the roof.<sup>97</sup></p> <p><b>Loading Ramp</b></p> <p>The loading ram consists of a metal frame filled with compacted earthen material (Figure 211).<sup>98</sup></p> <p><b>Building T-76 (CO076)</b></p> <p>Building T-76 was a wooden frame building that collapsed on 16 July 1996 (Figure 212).<sup>99</sup> The building was demolished after the collapse and only concrete foundation remains. Fort McCoy Archaeology Laboratory investigators were not able to determine if the structure has (or in the past had) anyany historic value.</p>
<p><b>Eligibility:</b></p>	<p>All of the buildings located at former AMSA #56 &amp; former 535<sup>th</sup> Military Police Battalion Headquarters are located within the boundaries of the Fort Hayes NHD, established by the Ohio SHPO in 1973. Building 102 and Building 103 of former AMSA #56 and Building 118 of the Fort Hayes Memorial USARC are individually listed on the NRHP as part of the Fort Hayes NHD. The remaining buildings at former AMSA #56 (Building 40, Building 67, Building 104, Building 105, Building 106, and Building 107), with the exception of Building 100, contain architecturally significant elements that are considered to be contributing factors to the historic integrity of Fort Hayes NHD. Building 100 does not exhibit nineteenth century architectural elements associated with the Fort Hayes NHD, and is not considered as a contributing element to the Fort Hayes NHD.</p> <p>The US Army Reserve is required to adhere to <i>the Secretary of the Interior's Standards</i> in maintaining and preserving the buildings in the same condition as exhibited in 1970 when they were put on the NRHP. As evident from the above documentation, the buildings at former AMSA #56 are currently in a serious state of deterioration. In addition, Building 118 of the Fort Hayes Memorial USARC has been altered from its original architectural design. It is recommended that the 88<sup>th</sup> RSC consult with the Ohio Historic Preservation Officer before attempting to stabilize, demolish, or transfer any buildings or property associated with AMSA #56 and Building 118 of the Fort Hayes Memorial USARC that have been identified as direct or</p>

	<p>contributing factors to the Fort Hayes NHD.</p>
<p><b>Sources:</b></p>	<p>“Annual Utilization Survey: AMSA #56 Building 102.” n.p. n.d.</p> <p>“Annual Utilization Survey: Columbus AMSA #56.” U.S. Army Reserve Command, Fort Knox, Kentucky. 17 May 1986.</p> <p>“Annual Utilization Survey: Fort Hayes AMSA #56.” n.p. 16 January 1989.</p> <p><i>Columbus Evening Dispatch</i>. Friday 15 December 1922.</p> <p>Epstein, Mark. History/Architecture Reviews Manager, Ohio Historic Preservation Office. Personal Communication. 22 April 1998.</p> <p>Gienow, Alfred C. “Notice.” State of Ohio Department of Public Works, Columbus, Ohio, 23 April 1970.</p> <p>Gretchen, Michael. Environmental Coordinator, 88th RSC Ohio Customer Support Team, Personal Communication. 14 August 1997.</p> <p><i>History of Franklin and Pickaway Counties, Ohio</i>. n.p.: Williams Bros. 1880.</p> <p>Jaycor. “Environmental Baseline Survey AMSA #56, Fort Hayes Columbus, Ohio.” 24 September 1996.</p> <p>“Real Property Detail Report Criteria: Total Inventory.” 88th RSC DSCEN Real Estate Division, Fort Snelling, Minnesota. 1997.</p> <p>Porter, Daniel R. Correspondence to Real Estate Division, U.S. Corps of Engineers. 15 December 1967.</p> <p>_____. “Fort Hayes: A Brief History.” Columbus, Ohio: Ohio Historical Society. n.d.</p> <p>_____. “National Register of Historic Places Inventory Nomination Form: Fort Hayes/Columbus Arsenal/Columbus Barracks.” 1 January 1970.</p> <p>Quitclaim Deed. 30 June 1971. Franklin County Deed Office, Columbus, Ohio.</p> <p>Quitclaim Deed. 28 December 1989. Franklin County Deed Office, Columbus, Ohio.</p> <p>“Report of Excess: Fort Hayes, Columbus, Ohio.” U.S. Army Reserve Support Command, Fort Knox, KY. 4 September 1984.</p> <p>Schafer, Carrie. Environmental Specialist, 88th Regional Support Command. Personal Communication. 23 April 1998.</p> <p>_____. Environmental Specialist, 88th Regional Support Command. Personal Communication. 12 May 1999.</p> <p>“Southeast Columbus Quadrangle.” USGS 7.5 Minute Series Map. Denver, Colorado: United States Geological Survey. 1964,</p>

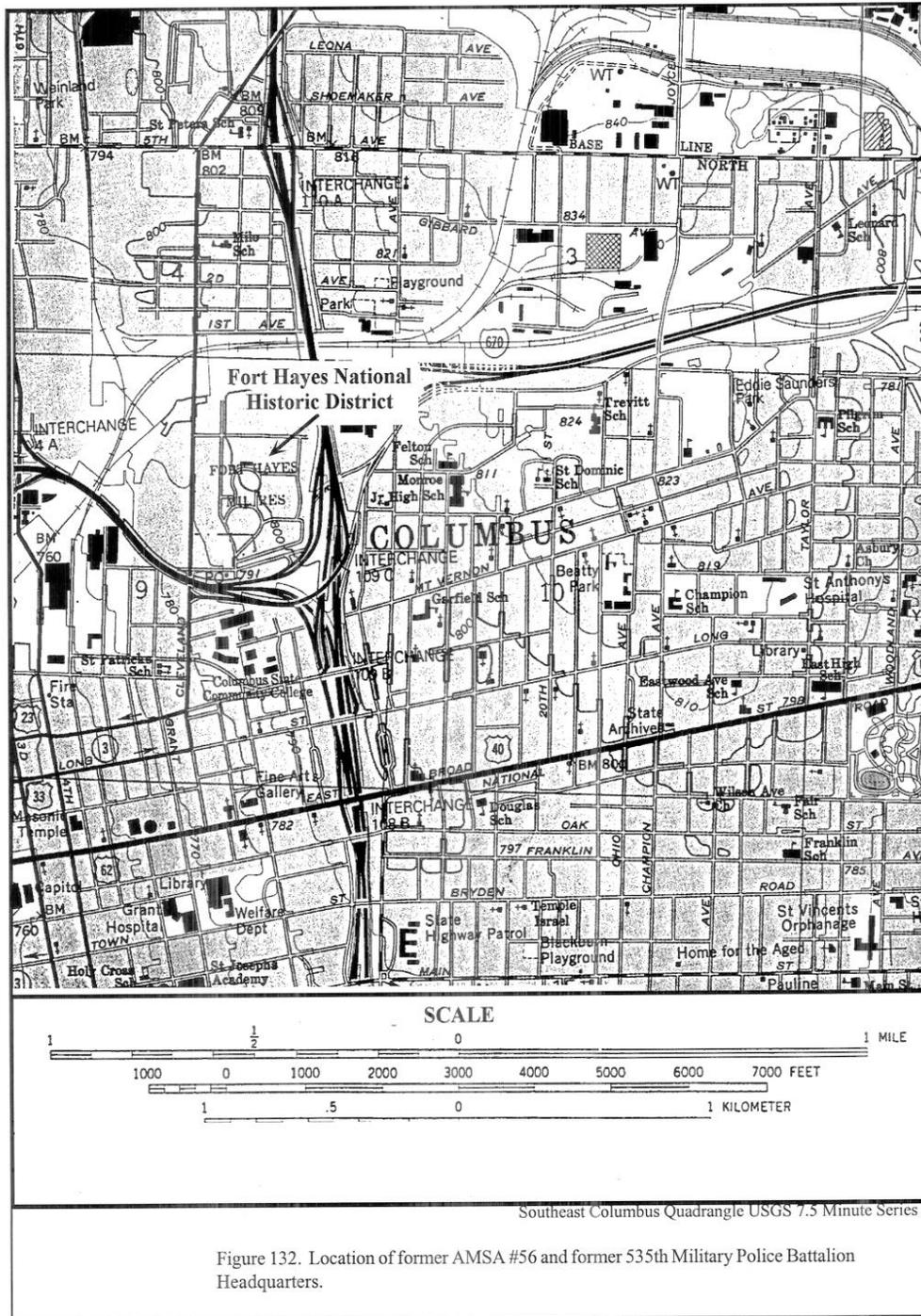
	<p>photorevised 1994.</p> <p>Works Progress Administration. <i>The Ohio Guide</i>. New York, New York: Oxford University Press. 1940.</p>
<p><b>Notes:</b></p>	<p>1 Larry Nelson, "Real Property Detail Report Criteria: Total Inventory," (Fort Snelling, Minnesota: 88th RSC DSCEN), 1998, p. 26. Facility identification numbers (OH073, OH078, &amp; OH087) provided in the "Real Property Detail Report" were assigned to Buildings 102, 103, and 118 respectively. Facility identifications numbers were not listed for the remaining buildings associated with former AMSA #56 and all facility numbers were consolidated under OH078.</p> <p>2 Carrie Schafer, Environmental Specialist, 88th Regional Support Command, Personal Communication, 23 April 1998. Cultural and environmental managers at the 88th RSC are currently in contact with the Ohio SHPO to clear the property and buildings for sale.</p> <p>3 "Annual Utilization Survey: AMSA #56," 16 January 1989.</p> <p>4 Daniel R. Porter, "National Register of Historic Places Inventory Nomination Form: Fort Hayes/Columbus Arsenal/Columbus Barracks," 1 January 1970.</p> <p>5 Daniel R. Porter, "Fort Hayes: A Brief History," (Columbus, Ohio: Ohio Historical Society), n.d., p. 1.</p> <p>6 "Report of Excess: Fort Hayes, Columbus, Ohio," U.S. Army Reserve Support Command, Fort Knox, KY, 4 September 1984, p. 1. A copy of this report is on file at the 88th RSC DSCEN Real Property Department, Fort Snelling, Minnesota, and at the Fort McCoy Archaeology Laboratory, Fort McCoy, Wisconsin.</p> <p>7 Ibid., and Daniel R. Porter correspondence to Real Estate Division, U.S. Corps of Engineers, 15 December 1967. A copy of this letter is on file at the 88th RSC DSCEN Real Estate Office, Fort Snelling, Minnesota and at the Fort McCoy Archaeology Laboratory, Fort McCoy, Wisconsin.</p> <p>8 Porter, "Fort Hayes: A Brief History," p. 3.</p> <p>9 "Report of Excess," 4 September 1984, p. 2.</p> <p>10 Porter, "Fort Hayes: A Brief History," p. 4.</p> <p>11 "Report of Excess," 4 September 1984, p. 2.</p> <p>12 "Report of Excess," 4 September 1984, p. 3.</p> <p>13 <i>Columbus Evening Dispatch</i>. Friday 15 December 1922. This document consists of a typed copy of the contents of a newspaper article "Name of Barracks Changed to Fort Hayes by War Department." A copy of this typed version of the newspaper article appearing in the Columbus Evening Dispatch is located in the Fort Hayes National Historic District file at the Ohio SHPO Office, Columbus, Ohio, and at the Fort McCoy Archaeology Laboratory, Fort McCoy, Wisconsin.</p> <p>14 "Report of Excess," 4 September 1984, p.3.</p> <p>15 Ibid.</p> <p>16 Porter, "National Register of Historic Places Inventory Nomination Form," 1 January 1970, p. 3. Mr. Porter completed the NRHP nomination form for Fort Hayes NHD and was supported by the Ohio SHPO.</p> <p>17 Alfred C. Gienow, "Notice," State of Ohio Department of Public Works, Columbus, Ohio, 23 April 1970. A copy of this notice is located in the Fort Hayes NHD file at the Ohio SHPO Office, Columbus, Ohio and at the Fort McCoy Archaeology Laboratory, Fort McCoy, Wisconsin.</p>

	<p><sup>18</sup> Quitclaim Deed, 30 June 1971, Franklin County Deed Office, Columbus, Ohio, p. 1. A copy of this deed is at the Fort McCoy Archaeology Laboratory, Fort McCoy, Wisconsin.</p> <p><sup>19</sup> "Annual Utilization Survey: Columbus AMSA #56," U.S. Army Reserve Command, Fort Knox, Kentucky, 17 May 1986, p. 1-2.</p> <p><sup>20</sup> Larry Nelson, "Real Property Detail Report Criteria: Total Inventory," p. 4-6.</p> <p><sup>21</sup> Quitclaim Deed, 28 December 1989, Franklin County Deed Office, Columbus, Ohio. A copy of this deed is located at the Fort McCoy Archaeology Laboratory, Fort McCoy, Wisconsin.</p> <p><sup>22</sup> Nelson, "Real Property Detail Report Criteria: Total Inventory," p. 1.</p> <p><sup>23</sup> Works Progress Administration, <i>The Ohio Guide</i>, (New York, New York: Oxford University Press), 1940, p. 248.</p> <p><sup>24</sup> <i>Ibid.</i>, pp. 248-249.</p> <p><sup>25</sup> <i>History of Franklin and Pickaway Counties, Ohio</i>, (n.p.: Williams Bros.), 1880, p. 512.</p> <p><sup>26</sup> <i>Ibid.</i>, 249.</p> <p><sup>27</sup> Works Projects Administration, <i>The Ohio Guide</i>, (New York, New York: Oxford University Press), 1940, p. 249.</p> <p><sup>28</sup> <i>Ibid.</i></p> <p><sup>29</sup> <i>Ibid.</i></p> <p><sup>30</sup> Larry Nelson, "Real Property Detail Report Criteria: Total Inventory," p. 1.</p> <p><sup>31</sup> <i>Ibid.</i></p> <p><sup>32</sup> <i>Ibid.</i></p> <p><sup>33</sup> <i>Ibid.</i>, 250.</p> <p><sup>34</sup> <i>Ibid.</i></p> <p><sup>35</sup> "Report of Excess: Fort Hayes, Columbus, Ohio," U.S. Army Reserve Support Command, Fort Knox, KY, 4 September 1984, p. 1. A copy of this report is on file at the 88<sup>th</sup> RSC DSCEN Real Estate Office, Fort Snelling, Minnesota and at the Fort McCoy Archaeology Laboratory, Fort McCoy, Wisconsin.</p> <p><sup>36</sup> <i>Ibid.</i>, and Correspondence, from Daniel R. Porter, Director, Ohio Historical Society to Real Estate Division, U.S. Corps of Engineers, 15 December 1967. A copy of this letter is on file at the 88<sup>th</sup> RSC DSCEN Real Estate Office, Fort Snelling, Minnesota and at the Fort McCoy Archaeology Laboratory, Fort McCoy, Wisconsin.</p> <p><sup>37</sup> Porter, "Fort Hayes: A Brief History," p. 4.</p> <p><sup>38</sup> <i>Ibid.</i></p> <p><sup>39</sup> <i>Ibid.</i></p> <p><sup>40</sup> <i>Ibid.</i></p> <p><sup>41</sup> <i>Ibid.</i></p> <p><sup>42</sup> <i>Ibid.</i>, p. 5.</p> <p><sup>43</sup> Mark Epstein, History/Architecture Reviews Manager, Ohio Historic Preservation Office, Personal Communication, 22 April 1998. According to Mr. Epstein, the era between 1850-1874 is listed as the time period associated with the historical significance of the Fort Hayes NHD; however, he believes that all buildings constructed in the nineteenth century buildings that are considered contributing elements to the historic integrity of the district. Mr. Epstein also stated that as contributing elements to Fort Hayes NHD, all buildings constructed before 1900 should be maintained and their historic integrity protected.</p> <p><sup>44</sup> The individual quarters were at one time numbered separately. Building 40 includes three units, formerly identified as Buildings 40, 41, and 42.</p> <p><sup>45</sup> "Report of Excess," DSCEN Real Property Division, 88th RSC, 20 March 1998, p. 3.</p>
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	<p>The construction date for building 40 is recorded as 1903, however it exhibits strong nineteenth century Italian Renaissance style architectural elements that make the building a contributing element to the Fort Hayes NHD.</p> <p><sup>46</sup> Both the foundation and the bricks show evidence of extreme deterioration. Mortar is falling from the joints, and water seepage and damage is evident.</p> <p><sup>47</sup> A ghost line shows evidence of where the porch once was attached to the structure. Further historic research should be conducted if renovation efforts include reconstruction of a porch to ensure compliance with the <i>Standards</i>.</p> <p><sup>48</sup> The ghost lines visible on the south wall suggest that the rear porches and hood awnings were attached after construction of the building. Typically buildings of this period did not include rear porches.</p> <p><sup>49</sup> At one time building entrances were secured and boarded over with plywood. Currently, some of the windows and doors are not secured, allowing access to the structure, as well as damage by animals, insect infestation, and the elements (Figures 140 &amp; 141). During the survey period wasps, small animals, and rodent infestation was observed.</p> <p><sup>50</sup> The sills of some windows are damaged.</p> <p><sup>51</sup> Deterioration has caused damage to the soffit (Figure 142). Guttering and drain spouts are untended, or missing, causing increased water damage to the building.</p> <p><sup>52</sup> Building 40 is in a serious state of deterioration. The exterior and interior deterioration of the building is rapidly advancing, causing a state of demolition by deterioration (Figures 143, 144, &amp; 145).</p> <p><sup>53</sup> "Report of Excess," DSCEN Real Property Division, 88<sup>th</sup> RSC, 20 March 1998, p. 3. The construction date for Building 67 is recorded as 1910, however it exhibits strong nineteenth century Italian Renaissance style architectural elements that make the building a contributing element to the Fort Hayes NHD.</p> <p><sup>54</sup> The materials used in the foundation were obscured from view.</p> <p><sup>55</sup> The door is most likely a replacement. An out-of-period hood and stoop was, at one time, attached to the buildings and has since been removed (Figure 150). The original configuration of the steps has also been altered, and was not readily discerned during this inventory.</p> <p><sup>56</sup> The roof still has the original slate shingles, however many individual shingles are missing (Figure 151). Due to the absence of missing shingles extensive damage has occurred to the roofs structural elements and has damaged the gutters and walls as well.</p> <p><sup>57</sup> The removal of the end gable chimney damaged the roof. Bricks from the chimney are found scattered on the ground to the east of the building.</p> <p><sup>58</sup> The function of these vents was not determined during the inventory; however their placement indicates either ventilation or, most likely, for venting interior heat stoves. Building 67 is in a serious state of deterioration which is advancing rapidly.</p> <p><sup>59</sup> "Report of Excess," DSCEN Real Property Division, 88<sup>th</sup> RSC, 20 March 1998, p. 3. The construction date for Building 100 is recorded as 1956 and does not exhibit nineteenth century architectural elements associated with the Fort Hayes NHD. Building 100 is not considered as a contributing element to the Fort Hayes NHD.</p> <p><sup>60</sup> Building 100 shows signs of damage and deterioration, including peeling paint on the wooden cornice and water damage along the northeast corner of the building.</p> <p><sup>61</sup> "Annual Utilization Survey-AMSA #56 Building 102," n.d., p. 1.</p> <p><sup>62</sup> "Report of Excess," DSCEN Real Property Division, 88<sup>th</sup> RSC, 20 March 1998, p. 3. The construction date for Building 102 is recorded as 1895 and exhibits strong nineteenth century Italian Renaissance style architectural elements that make the building a contributing element to the Fort Hayes NHD.</p> <p><sup>63</sup> The concrete block shed has a damaged four-panel wooden pedestrian door that exposes the interior of the building to animal infestation and exposure to the elements.</p> <p><sup>64</sup> Modifications to the front and rear entrances appear to be reversible (Figures 157 &amp; 158).</p>
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	<p><sup>65</sup> Some of the windows have broken panes that expose the interior of the building to birds, animals, birds and the elements (Figure 162).</p> <p><sup>66</sup> A security grate covers the vent on the east wall of the building. The grate has been damaged creating a safety and security hazard (Figure 163).</p> <p><sup>67</sup> The gabled peak at the north side of the building has been damaged (Figure 164). Past repairs have included replacing the brick with a non-matching type, and the bricks and mortar are falling out in places (Figure 165). The peak on the north gable has a cap whereas the cap on the peak of the south gable is missing.</p> <p><sup>68</sup> "Report of Excess," DSCEN Real Property Division, 88<sup>th</sup> RSC, 20 March 1998, p. 3. The construction date for Building 103 is recorded as 1896 and exhibits strong nineteenth century Italian Renaissance style architectural elements that make the building a contributing element to the Fort Hayes NHD.</p> <p><sup>69</sup> The building has a basement that was used as recently as 1996. There seems to be mortar falling out of the brick walls, most likely due to water damage (Figure 175).</p> <p><sup>70</sup> Alterations to the south porch include: the addition of coupled pipe railings; the placement of plywood over the porch floor; a damaged brick lattice under the porch; and the construction of a plywood entryway constructed on the porch that compromises the integrity of the original aesthetic of the building.</p> <p><sup>71</sup> The porch is damaged and has broken concrete blocks and the wood on the entry is not painted (Figure 176).</p> <p><sup>72</sup> Numerous asphalt shingles were observed as being loose and warped, leaving the roof vulnerable to damage from the elements (Figure 177).</p> <p><sup>73</sup> The chimney bricks change color one-third of the way up its height, indicating it has been repaired. Other signs of deterioration around the perimeter of the building include: unpainted wooden trim, crumbling mortar, and missing gutters. If repairs are not made within the near future, the building may be in jeopardy of further deterioration.</p> <p><sup>74</sup> "Report of Excess," DSCEN Real Property Division, 88<sup>th</sup> RSC, 20 March 1998, p. 3. The construction date for Building 104 is recorded as 1910 and exhibits strong nineteenth century Italian Renaissance style architectural elements that make the building a contributing element to Fort Hayes NHD.</p> <p><sup>75</sup> Numerous damaged bricks and mortar are falling out of the walls of the building.</p> <p><sup>76</sup> Windows on Building 104 were found open by Fort McCoy investigators and have been allowing small animal infestation and the elements to damage the interior of the structure. Iron security bars prohibit large animals and persons out of the building.</p> <p><sup>77</sup> Numerous slate shingles are missing from Building 104, and those remaining appear to be damaged (Figure 183).</p> <p><sup>78</sup> "Report of Excess," DSCEN Real Property Division, 88<sup>th</sup> RSC, 20 March 1998, p. 3. The construction date for Building 105 is recorded as 1894 and exhibits strong nineteenth century Italian Renaissance style architectural elements that make the building a contributing element to the Fort Hayes NHD.</p> <p><sup>79</sup> Brick on the building exhibit signs of damage, especially in locations where gutter drainpipes are missing and water has been allowed to channel from the roof down the side of the building (Figure 188).</p> <p><sup>80</sup> All doors on Building 105 appear to be severely damaged and are in need of maintenance or replacement.</p> <p><sup>81</sup> Several windows on Building 105 are open or the glass has been broken, exposing the interior of the building to the elements and animal infestation (Figure 189).</p> <p><sup>82</sup> Building 105 appears to be serious disrepair and unless maintenance is undertaken it could soon be destroyed due to deterioration.</p> <p><sup>83</sup> "Report of Excess," DSCEN Real Property Division, 88<sup>th</sup> RSC, 20 March 1998, p. 3. The construction date for Building 106 is recorded as 1908 and exhibits strong</p>
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	<p>nineteenth century Italian Renaissance style architectural elements that make the building a contributing element to the Fort Hayes NHD.</p> <p><sup>84</sup> The bricks on Building 106 appear to be damaged as some mortar is falling out of the wall.</p> <p><sup>85</sup> The gutters on Building 106 are still functioning, but the absence of drainpipes are contributing to the deterioration of the walls and foundation.</p> <p><sup>86</sup> Building 106 appears to be in poor condition and in need of repairs.</p> <p><sup>87</sup> "Report of Excess," DSCEN Real Property Division, 88<sup>th</sup> RSC, 20 March 1998, p.3. The construction date for Building 107 is recorded as 1898 and exhibits strong nineteenth century Italian Renaissance style architectural elements that make the building a contributing element to the Fort Hayes NHD.</p> <p><sup>88</sup> The exterior brick on Building 107 is gray, however a secondary layer of brick on the interior of the building is red brick.</p> <p><sup>89</sup> All doors on Building 107 appear to be in poor condition and are in need of replacement or repair (Figure 198).</p> <p><sup>90</sup> The glass windowpanes in windows on Building 107 are broken or missing and allow the interior of the building to be exposed to animal infestation and the elements (Figures 199 &amp; 200).</p> <p><sup>91</sup> Jaycor, Environmental Baseline Survey AMSA #56, Fort Hayes Columbus, Ohio, Contract Number DACA 27-92-D-004, Jaycor Project Number: 2983, 24 September 1996, pp. 3-5. Jaycor investigators state that Building 107 is scheduled for demolition at an undisclosed date.</p> <p><sup>92</sup> The roof on Building 107 is missing shingles and the gutter system appears to be almost completely deteriorated.</p> <p><sup>93</sup> Building 118 (a component of the Fort Hayes Memorial USARC) appears to have been enlarged at an unknown date and further research would be required to determine when the extensive modifications were made to the building. The original front of the building was located on the east wall of the building and consisted of two pedestrian doors within an enclosed porch. The main entrance to the building is currently located on the south side of the building and contains a metal pedestrian door covered by a metal hood awning.</p> <p><sup>94</sup> The entrance on the south side of the building appears to have been altered at an unknown date.</p> <p><sup>95</sup> Several of the windows on the building have been modified, with openings on the east and north sides of the building having had exceptionally noticeable alterations.</p> <p><sup>96</sup> The soffit on the west wall of the building appears to be damaged and "rotting" off the building (Figures 209 &amp; 210).</p> <p><sup>97</sup> Building 118 appears to be in fair condition, however it has been modified from its original appearance and includes: blocked in original entrances, altered windows, and the construction of a skylight. Building 118 has been singly listed on the NRHP since 1973, however the modifications made to its exterior façade leaves its historic integrity in doubt.</p> <p><sup>98</sup> The date of construction for the Loading Ramp is unknown to real estate specialists at the 88<sup>th</sup> RSC and Fort McCoy Archaeology Laboratory staff.</p> <p><sup>99</sup> Mike Gretchen, Environmental Coordinator, Ohio Customer Support Team, Personal Communication, 14 August 1997 and Carrie Schafer, Environmental Specialist, 88<sup>th</sup> RSC Environmental Division, Personal Communication, 12 May 1999. Notes on file at the Fort McCoy Archaeology Laboratory, Fort McCoy, Wisconsin. Building T-76 was destroyed when members of AMSA #56 removed supplies from the interior of the building that were apparently supporting the building. According to Mr. Gretchen, the structural integrity of the building was in such a deteriorated state that when the supplies were removed the walls could not support the weight of the roof and the building collapsed. Ms. Schafer informed members of the Fort McCoy Archaeology Laboratory that Building T-76 collapsed on 16 July 1996.</p>
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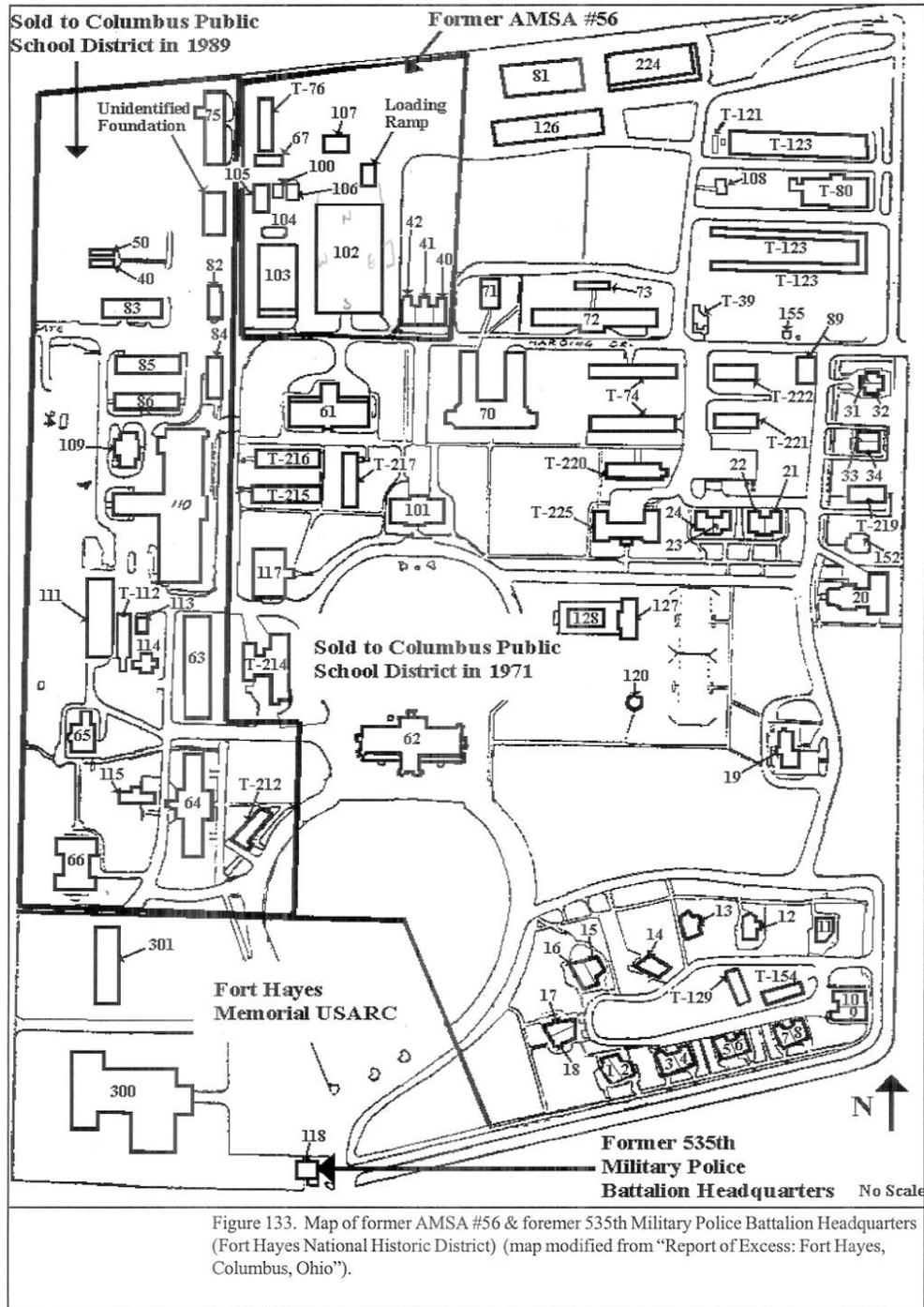




Figure 202. Fort Hayes Memorial USARC, Building 118, facing north.

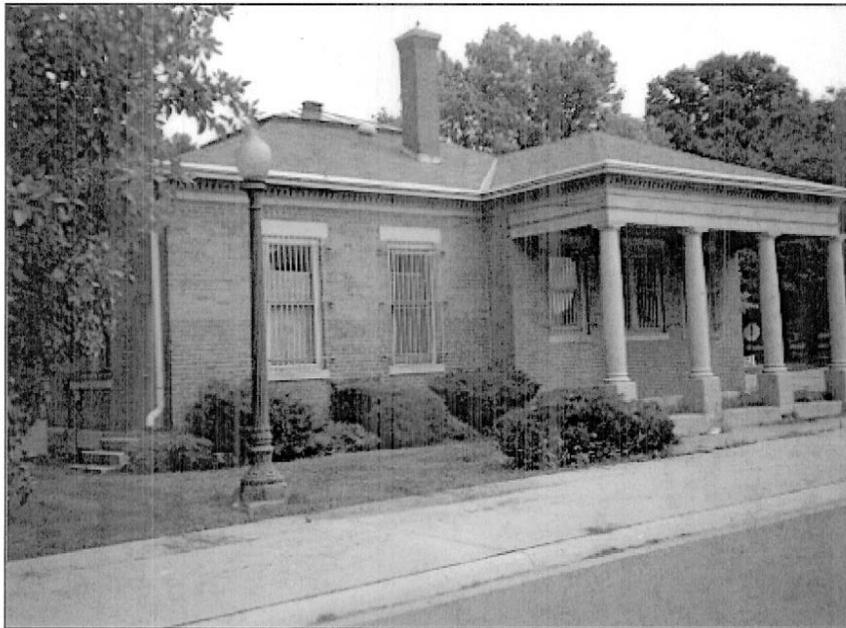


Figure 203. Fort Hayes Memorial USARC, Building 118, south side, viewing the original porch.



Figure 204. Fort Hayes Memorial USARC, Building 118, viewing porch floor tiles.

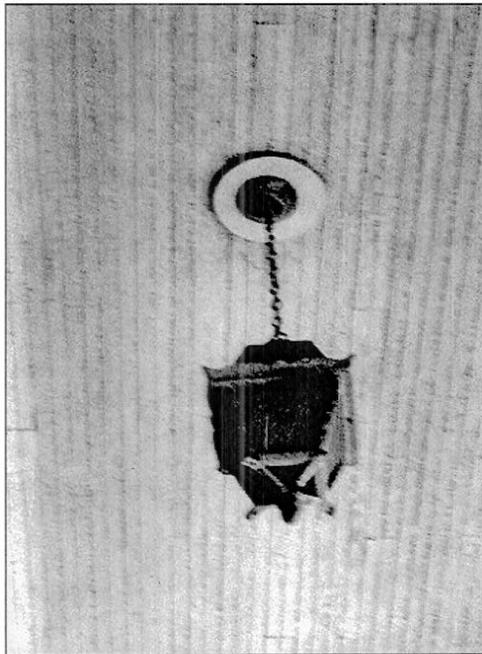


Figure 205. Fort Hayes Memorial USARC, Building 118, viewing hanging lamp located on interior of porch roof.



Figure 206. Fort Hayes Memorial USARC, Building 118, facing west.

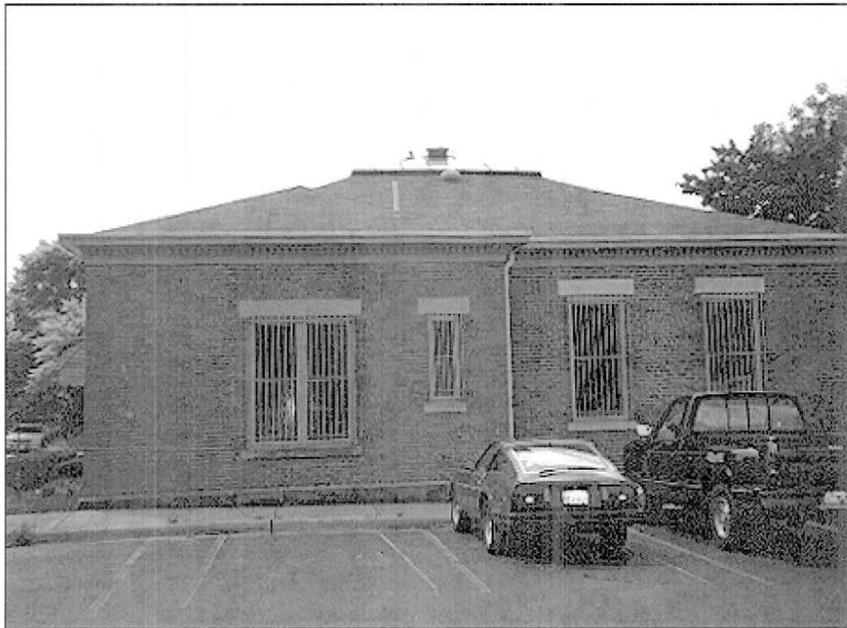


Figure 207. Fort Hayes Memorial USARC, Building 118, facing south.



Figure 208. Fort Hayes Memorial USARC, Building 118, facing southwest.

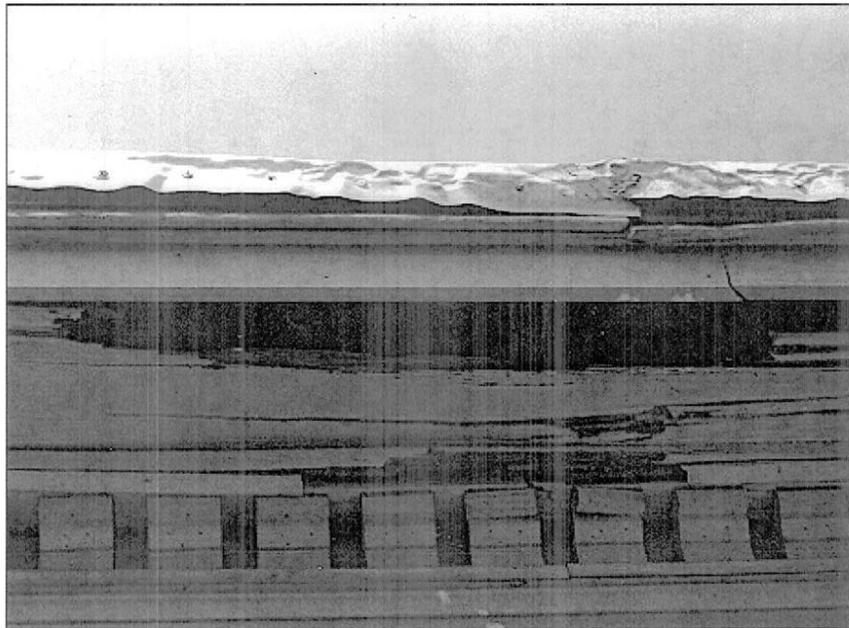


Figure 209. Fort Hayes Memorial USARC, Building 118, viewing evidence of deteriorating soffit and roof eaves.



Figure 210. Fort Hayes Memorial USARC, Building 118, viewing further evidence of deterioration to the soffit and roof eaves.



Figure 211. Former AMSA #56 Loading Ramp is located in the center of the photograph between two patches of tall weeds.

<p><b>Columbus, Ohio</b> Fort Hayes Memorial USARC</p>	
<p><b>Identification Information:</b></p>	<p>Identification Number: OH013/39220 Fort Hayes Memorial USARC 530 Jack Gibbs Blvd., Columbus, Franklin County, Ohio 43215-1975 Telephone Number: (614) 692-5451 Southeast Columbus Quadrangle, Ohio, USGS 7.5 Minute Series, T5N R18W, Section 9 (Figure 213) UTM: Z17, 330017E, 4426666N Present Owner/Occupant: The facility is owned by the US Government and controlled by the 88<sup>th</sup> RSC.</p>
<p><b>Setting and Landscape:</b></p>	<p>The Fort Hayes Memorial USARC consists of three buildings on 10.78 acres of land (CO001) located in an industrial and commercial district in Columbus, Ohio (Figure 214).<sup>1</sup> One building on the facility, Building 118, is included in the Fort Hayes National Historic District (NHD) and is discussed in the “Former AMSA #56 &amp; former 535th Military Police Battalion Headquarters” section of this report (Figure 133). The Fort Hayes Memorial USARC is located near the southeast corner of the Fort Hayes NHD. Vegetation on the site includes grass, trees, and shrubs.</p>
<p><b>Archaeological Resources:</b></p>	<p>An archaeological records search at the Ohio State Historic Preservation Office determined that there are no known documented archaeological sites within a one-mile radius of the Fort Hayes Memorial USARC.<sup>2</sup></p>
<p><b>Historical Information:</b></p>	<p>The Fort Hayes Memorial USARC was constructed in 1965.<sup>3</sup> There appear to have been no significant additions or alterations to the buildings since their original construction.<sup>4</sup></p>
<p><b>Security:</b></p>	<p>Security measures at the Fort Hayes Memorial USARC include chain-link fencing topped with barbed wire surrounding the Organizational Maintenance Shop, and two military vehicle parking areas. A second chain-link fence is located along the south and west sides of the Reserve Center along Cleveland Avenue and Jack Gibbs Boulevard (Figure 214).</p>

<p><b>Architectural Information:</b></p>	<p>Modern structures at the Fort Hayes Memorial USARC consists of two concrete block buildings with red brick veneers. The buildings do not appear to exhibit significant historical or architectural character or merit that significantly contributes to the historic context of the period associated with their construction.</p>
<p><b>Building Descriptions:</b></p>	<p><b>Reserve Center (CO330)</b></p> <p>The Reserve Center functions as an administrative office and drill hall for the Fort Hayes Memorial USARC. Constructed in 1965, it is a multiple-level, irregular-shaped containing four rectangular one-story, one-and-one half-story, and two story building sections (Figures 215, 216, &amp; 217). The Reserve Center rests upon a concrete foundation with concrete block walls and a brick veneer. A recessed entrance containing a pair of glass pedestrian doors with single-light sidelights is located on the west wall (Figure 218). Two additional recessed entrances containing pairs of glass pedestrian doors with single-light sidelights are located on the south wall (Figure 219). Single and paired glass and metal pedestrian doors are located on the north, south, and east walls. In addition, a metal overhead retractable bay door is located on the east wall (Figure 220). A series of one-over-one light casement ribbon windows with continuous plain slip concrete sills are located along the north, south, and west walls. A series of flat, low-pitch shed, and low-pitch gable roofs cover various sections of the building (Figures 221 &amp; 222).</p> <p><b>Organizational Maintenance Shop (CO301)</b></p> <p>The Organizational Maintenance Shop functions as a vehicle maintenance facility for the Fort Hayes Memorial USARC. Constructed in 1965, it is a one-story rectangular building that rests upon a poured concrete foundation with concrete block walls and a brick veneer. Six metal overhead retractable bay doors with metal panel lintels located along the east wall (Figure 223), and several metal pedestrian doors are located on the north and south sides of the building (Figure 224). A short brick wall, approximately two or three meters in height, is located near the northwest corner of the building (Figures 225 &amp; 226). A series of three-over-three light awning ribbon windows with metal panel lintels are located near the roof eaves along the west wall (Figure 227). A low-pitch gable roof covers the structure.</p>
<p><b>Eligibility:</b></p>	<p>None of the buildings located at the Fort Hayes Memorial USARC meet the criteria for the National Register of Historic Places (NRHP), under Criterion</p>

<p><b>Eligibility:</b></p>	<p>A, B, C, or D, and thus are not recommended for nomination to the NRHP. None of the buildings located at the Fort Hayes Memorial USARC meet the criteria for the National Register of Historic Places (NRHP), under Criterion A, B, C, or D, and thus are not recommended for nomination to the NRHP. A historic documentary and architectural investigation conducted at the facility determined there is no direct relationship between the facility and pre-historic or historic events in the Columbus area (criterion A), there is no association with significant persons involved in prehistoric or historic events (criterion B), buildings on the facility are not architecturally or technologically significant (criterion C), and the facility is unlikely to hold future research potential (criterion D).</p>
<p><b>Recommendations:</b></p>	<p>No additional review for Section 110 is recommended until the existing buildings at the Fort Hayes Memorial USARC reach the fifty year eligibility requirement for the NRHP in 2015, or unless specific undertakings require compliance with Section 106 of the National Historic Preservation Act (36 CFR 800).</p>
<p><b>Sources:</b></p>	<p>“Environmental Audit of Fort Hayes Memorial U.S. Army Reserve Center.” Lexington, Kentucky: Howard K. Bell, Consulting Engineers, Inc. 1991.</p> <p>Koch, Candy. Facility Manager, Fort Hayes Memorial USARC. Personal Communication. 24 June 1998.</p> <p>Porter, Daniel R. “National Register of Historic Places Inventory Nomination Form: Fort Hayes/Columbus Arsenal/Columbus Barracks.” 1 January 1970.</p> <p>“Real Property Detail Report Criteria.” 88th RSC DSCEN Real Estate Division, Fort Snelling, Minnesota. March 1998.</p> <p>“Southeast Columbus Quadrangle, Ohio-Franklin Co.” USGS 7.5 Minute Series Map. Denver, Colorado: United States Geological Survey. 1964, revised 1994.</p>
<p><b>Notes:</b></p>	<p><sup>1</sup> “Real Property Detail Report Criteria,” 88th RSC DSCEN Real Estate Division, Fort Snelling, Minnesota. A copy of this report can be obtained from the 88<sup>th</sup> RSC DSCEN Real Estate Division office in Fort Snelling, Minnesota.</p>

	<p><sup>2</sup> Daniel R. Porter. "National Register of Historic Places Inventory Nomination Form: Fort Hayes/Columbus Arsenal/Columbus Barracks," 1 January 1970. A copy of this nomination is on file at the Ohio State Historic Preservation Office, Columbus, Ohio.</p> <p><sup>3</sup> A cornerstone located on the Reserve Center dates the construction of the facility as 1965.</p> <p><sup>4</sup> Candy Koch, Facility Manager, Fort Hayes Memorial USARC. Personal Communication, 24 June 1998. According to Ms. Koch, the Reserve Center was constructed as a multiple-level, irregular-shaped building in the early 1960's and no additional building sections were added to the structure. A cornerstone on the Reserve Center specifies 1965 as the date of construction.</p>
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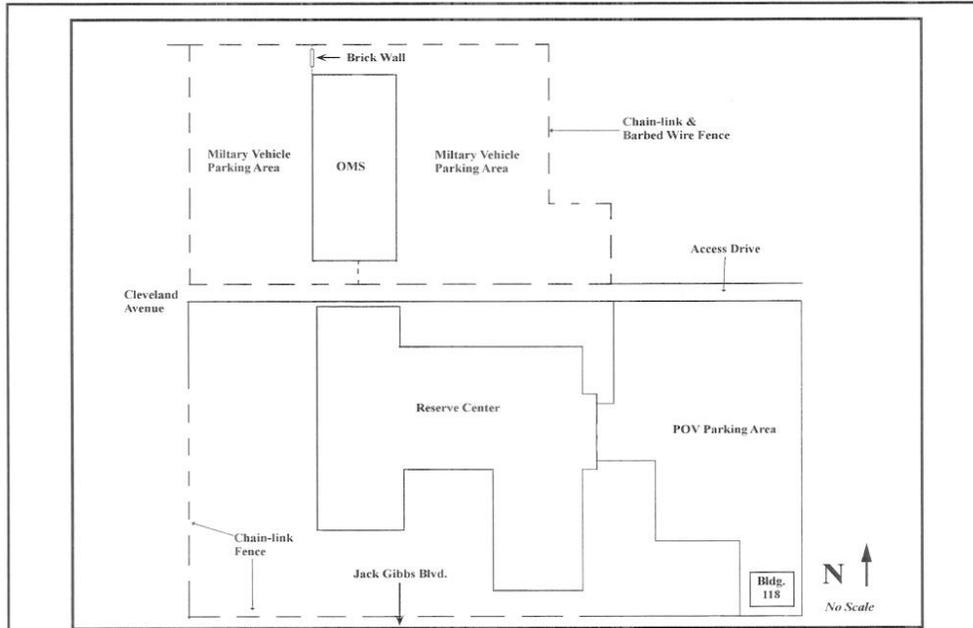


Figure 214. Map of the Fort Hayes Memorial USARC (map modified from Howard K. Bell, Consulting Engineers, Inc., "Environmental Audit of Fort Hayes Memorial U.S. Army Reserve Center," Attachment No. 1 ).

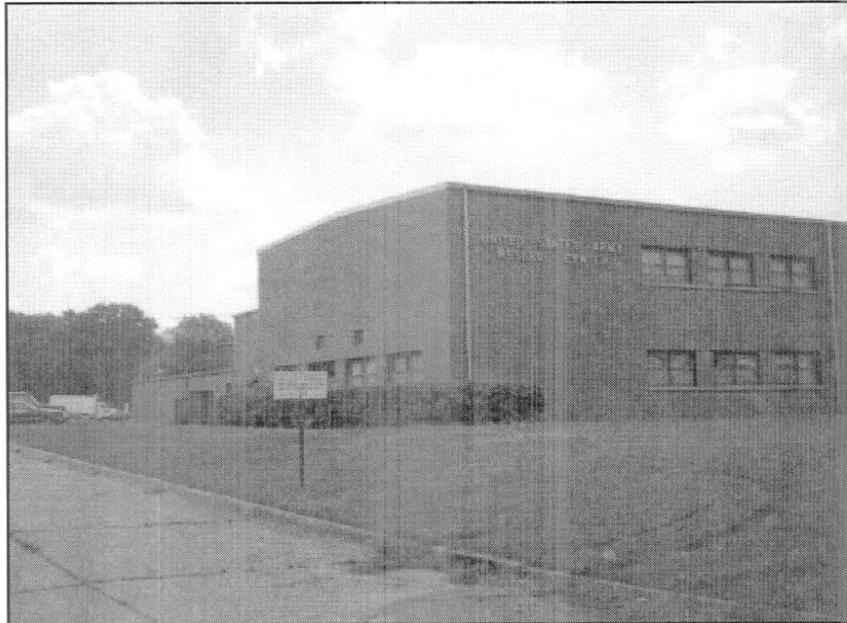


Figure 215. Fort Hayes Memorial USARC Reserve Center, facing southeast.

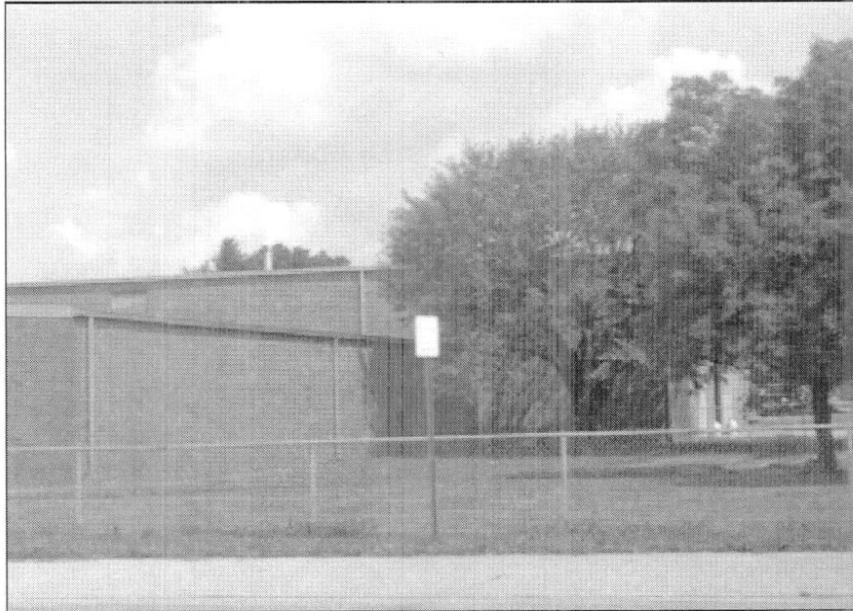


Figure 216. Fort Hayes Memorial USARC Reserve Center, facing northwest.

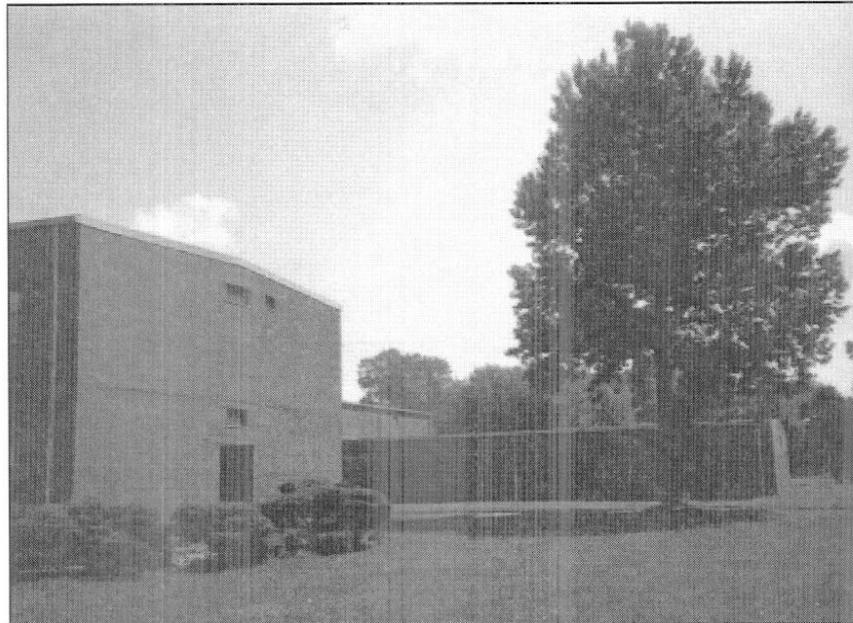


Figure 217. Fort Hayes Memorial USARC Reserve Center, facing northeast.



Figure 218. Fort Hayes Memorial USARC Reserve Center, facing northeast.



Figure 219. Fort Hayes Memorial USARC Reserve Center, facing north (center section).

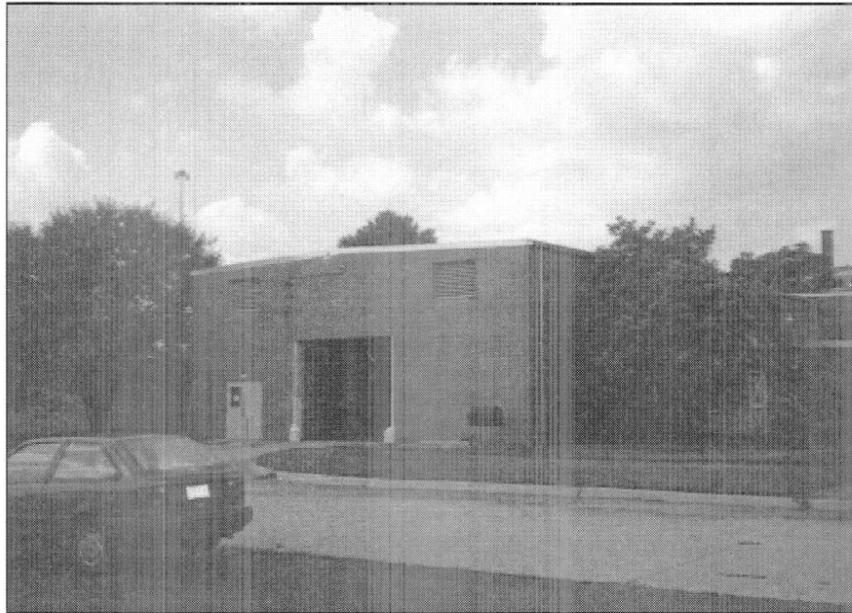


Figure 220. Fort Hayes Memorial USARC Reserve Center, facing southwest.

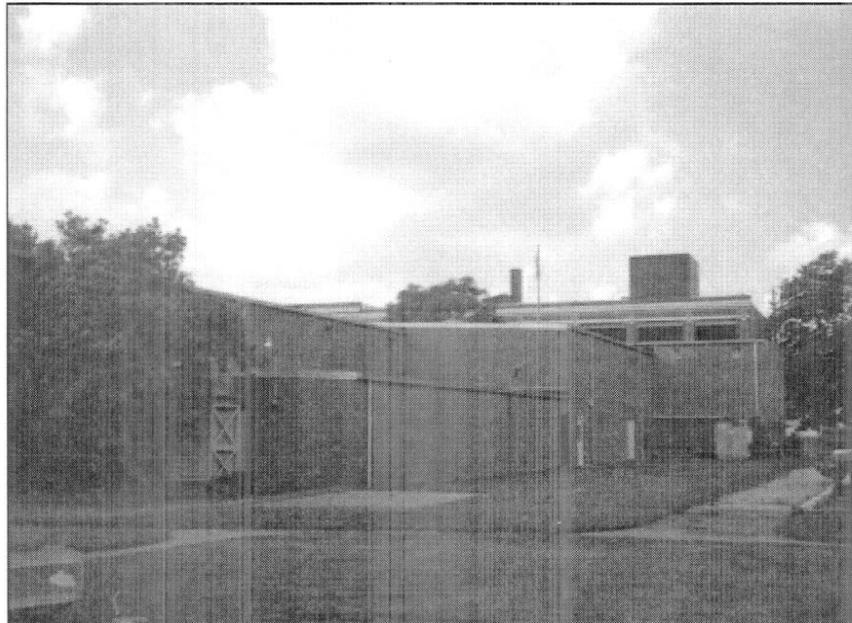


Figure 221. Fort Hayes Memorial USARC, facing southwest.

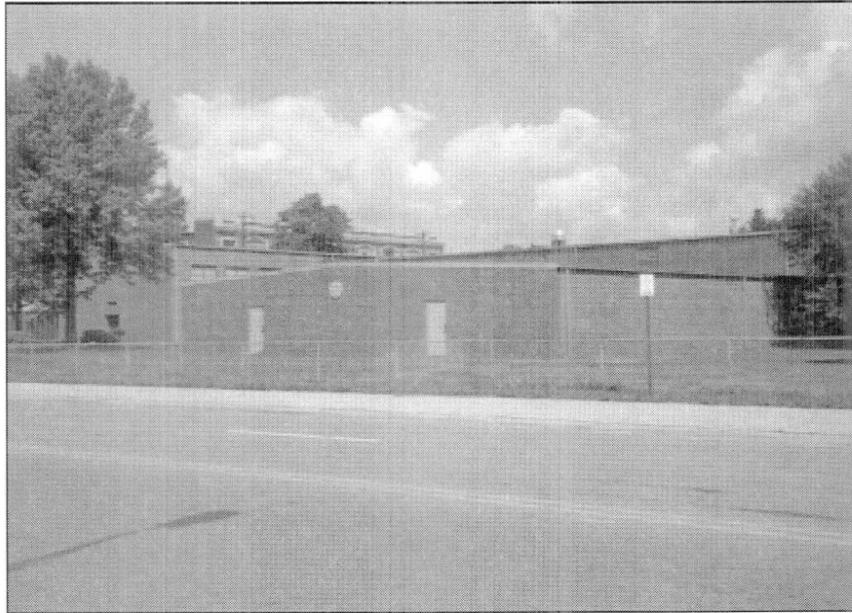


Figure 222. Fort Hayes Memorial USARC Reserve Center, facing northwest (southeast corner of building).



Figure 223. Fort Hayes Memorial USARC Organizational Maintenance Shop, facing southwest.



Figure 224. Fort Hayes Memorial USARC Organizational Maintenance Shop, facing north.



Figure 225. Fort Hayes Memorial USARC Organizational Maintenance Shop, facing southwest (oblique view of the north wall).

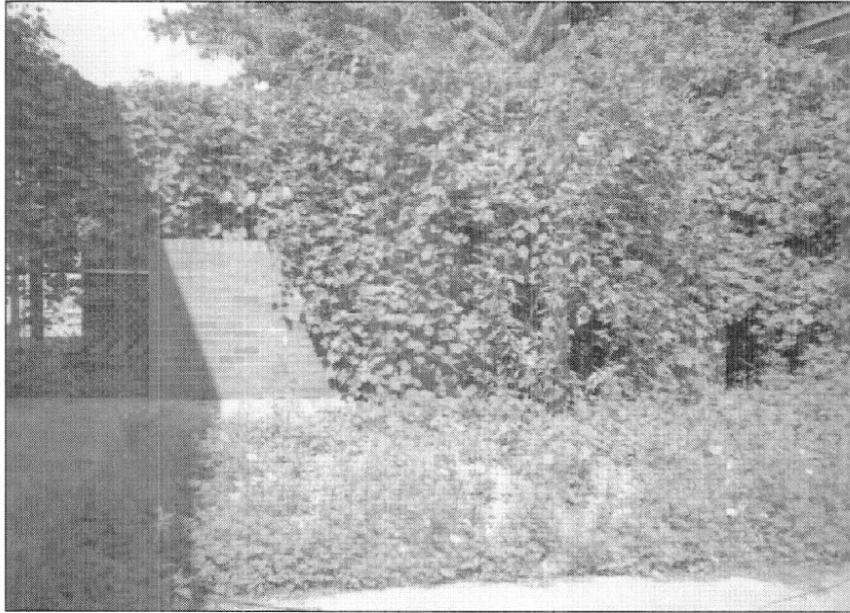


Figure 226. Fort Hayes Memorial USARC Organizational Maintenance Shop Brick Wall, facing west.

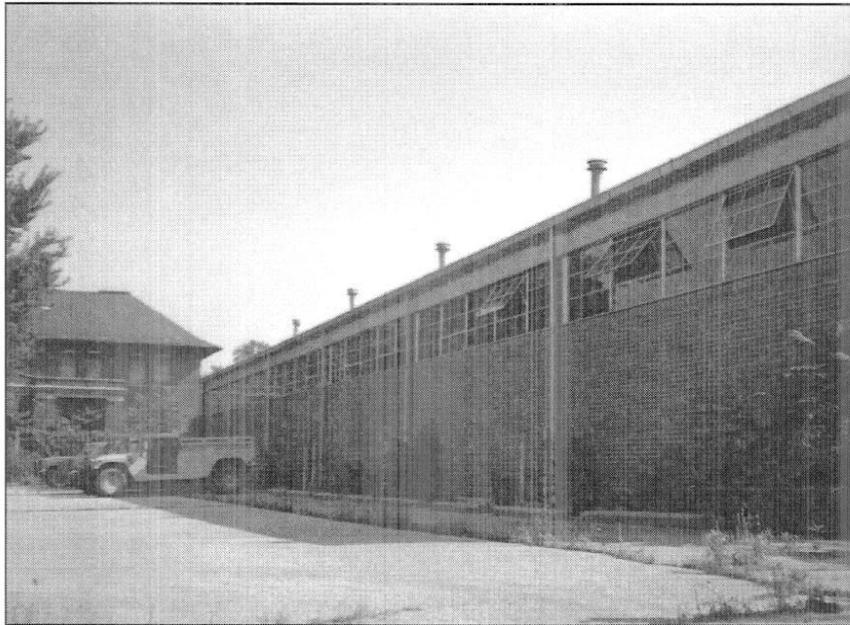


Figure 227. Fort Hayes Memorial USARC Organizational Maintenance Shop, facing northeast.

## **C.4 Excerpt from March 2005 Fort Hayes National Historic District Condition Assessment, Stabilization, and Layaway Plan Update**

**FORT HAYES NATIONAL HISTORIC DISTRICT, COLUMBUS, OHIO**  
**Condition Assessment, Stabilization and Layaway Plan Update**  
**March 2005**

**FORMER AMSA #56**

**OH111/39220**

Building 40, 67, 100, 102, 103, 104, 105, 106 and 107

**FORT HAYES MEMORIAL USARC**

**OH013/39220**

Former 535<sup>th</sup> Military Police Battalion Headquarters  
Building 118

**FINAL REPORT**

Prepared for:

**The United States Army Reserve**  
**88<sup>th</sup> Regional Readiness Command (RRC)**  
**Directorate of Engineer, Environmental Division**  
**Fort Snelling, Minnesota**

Submitted by:

**Brockington and Associates, Inc.**  
**Norcross, Georgia**

In cooperation with:

**S. Harris & Co.**  
**Architectural Technology**  
**Philadelphia, Pennsylvania**

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*List of Acronyms*

AMSA	Area Maintenance Support Activity
CMU	Concrete Masonry Unit
ICAP	Installation Corrective Action Plan
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
PCB	Poly Chlorinated Biphenyls
RRC	Regional Readiness Command
RSC	Regional Support Command
USARC	United States Army Reserve Command
USGS	United States Geographical Survey

## FORT HAYES NATIONAL HISTORIC DISTRICT, COLUMBUS, OHIO

### Condition Assessment, Stabilization and Layaway Plan Update

#### *Executive Summary*

S. Harris & Co. (Philadelphia, PA), under contract to Brockington and Associates, Inc. (Norcross, GA), completed a condition assessment for ten buildings at the Fort Hayes National Historic District. Samuel Y. Harris and Rachel Royer visited the site on March 2 and March 3, 2005. The assessment began during the afternoon of March 2. The weather was overcast and windy, with temperatures in the high 20s to low 30s. On the morning of March 3, the assessment continued. The day was sunny with temperatures beginning in the high 30s, and increasing throughout the day. The assessment consisted of the examination and documentation of the exterior and interior conditions of ten buildings; nine buildings in AMSA #56, 4.47 acres tract (OH111/39220), and one building within the USARC "300 complex" 10.78 acres tract (OH013/39220).

S. Harris & Co. reviewed the *National Historic Preservation Act (NHPA) Section 110 Report* (Ohio facilities) prepared by the Fort McCoy Archaeological Laboratory that was completed in December 1999. The firm also reviewed the Condition Assessment, Stabilization and Layaway Plan Final Report prepared by the National Park Service Historic Preservation Training Center in September 2000. Both reports contained pertinent and valuable information, but required updating. The condition of all of the buildings has changed since the previously completed report, due to either maintenance efforts or continued deterioration.

The quality of the original construction of all of the buildings on site is high. There are four buildings (40, 102, 103 and 118) that are more significant than the rest on the site due to their size, architectural significance and potential for reuse. The remainder of the buildings are smaller and more difficult to reprogram. However, for the most part, these buildings are in stable condition and there are architecturally significant elements among them. Of the buildings surveyed for this report, buildings 102, 103 and 118 are individually listed on the National Register of Historic Places (NRHP, prepared by the Ohio Historical Society in December 1969).

The overall condition of the ten buildings at Fort Hayes Historic District that are included in this evaluation is fair. The buildings are in varying stages of deterioration, and all show signs of disrepair. If the treatments recommended for critical items are not carried out within the next three years, there will be a significant amount of loss of historic fabric and Building 103 could be lost completely.

There are three crucial stabilization treatments that are necessary to prevent loss of fabric and to protect the two most adaptable spaces on the site:

- Building 102 is the most desirable space for reuse. It is a large, open interior space with plenty of overhead space. The structure is sound and the roof structure is architecturally significant. However, the roof shingles are beyond their useful life and are showing signs of advanced deterioration. These shingles must be replaced in order to protect the roof structure. The eaves that are currently boxed in should be repaired and returned to their original configuration at the time of the reroofing.
- Building 103 is an architecturally significant building and also has a large area of reprogrammable interior space. It is a desirable candidate for reuse, but it is in an advanced state of deterioration and is threatening a partial collapse. The roof covering failed, leaving the roof structure exposed to prolonged periods of water infiltration. The temporary measure taken to stop this water infiltration that was installed in 2003 has already begun to fail, reactivating the problem. The roof structure is deteriorated and is on the verge of collapse in some areas. The roof structure must be braced, at the least, and new prophylactic measures taken. A more desirable solution would be to replace failing structural members and install a new shingle roof.
- The porch of Building 103 is also under stress because of deteriorating structural members and must be shored up to prevent collapse.

It was noted at the site that termites have damaged the wood flooring within Building 104, but it appeared that the problem was inactive at the time. A review of this prior termite infestation would be prudent in maintaining the site in its entirety. Overall, all of the buildings on the site can be salvaged and reused. Since the site is historically and architecturally significant, it is recommended that all reasonable efforts to restore and reactivate the buildings be made.

### ***Project Background***

The purpose of this project is to provide the 88<sup>th</sup> Regional Readiness Command of the U.S. Army Reserve with an update of their existing Fort Hayes assessment and layaway plan, including new recommendations. Field investigation and condition assessment were conducted on March 2-3, 2005. The draft report was prepared during the month of March 2005.

### ***Site Background***

Fort Hayes is located within the city limits of Columbus, Ohio. It is bounded by I-670 on the north, I-71 on the east, Jack Gibbs Boulevard and I-71 on the south and Cleveland Avenue on the west. The street address for the site is 530 Jack Gibbs Boulevard, Columbus, Ohio, 43215-1795. See attached USGS topographic map for location. Within Fort Hayes National Historic District, there are two parcels that are under real property authority of the 88<sup>th</sup> RRC. The USARC (OH13/39220) is located in the southwest corner of the site. It encompasses 10.78 acres and includes Building 118, the former 535<sup>th</sup> Military Police Battalion Headquarters. The former AMSA #56 (OH111/39220) is a 4.47 acre area located in the north central portion of the site, which includes the remaining nine buildings included in this survey. The former AMSA #56 was declared excess property in March 1998, revised in August 2004, and will be transferred to the U.S. General Services Administration (GSA). As part of the disposal process defined by the National Historic Preservation Act, the 88<sup>th</sup> RRC has initiated the Section 106 process, which includes the investigation reported here.

Fort Hayes was originally constructed as the Columbus Arsenal late in the Civil War. Construction of an armory and arsenal to store and repair Ordnance Corps arms and to equip war regiments was authorized by Congress in 1861. In 1863, approximately 70 acres were acquired on the northeast side of Columbus and construction of a railroad spur to the site was begun. Construction on the first buildings, a series of 12 Tuscan Revival buildings, was completed in 1864. The War Department transferred the arsenal to the General Recruiting Services for depot purposes in 1875 and the site was renamed Columbus Barracks. The site was used to instruct recruits from 1875 to 1890. During and immediately following the Spanish-American War the barracks were expanded and from 1905 through World War I, the site was the official Columbus Recruiting Depot. The site was renamed Fort Hayes in 1922 in honor of Rutherford B. Hayes, an Ohio Governor and later President of the United States. The site is currently home to the Fort Hayes Metropolitan Education Center, a Columbus Public Schools bus depot, and an Army Reserve Center. It is the oldest continuously-used federal facility in the state of Ohio.

Fort Hayes was nominated to and listed on the National Register of Historic Places (NRHP) in 1970 as an historic district under Criteria A and C. The site's area of significance for listing was military architecture. At the time of its listing, the district included 11

contributing buildings and 43 non-contributing buildings. Surveyed within this report are three individual buildings that are listed on the NRHP for their significance. Noted in the nomination report prepared by the Ohio Historical Society in December 1969, buildings 102, 103 and 118 are discussed.

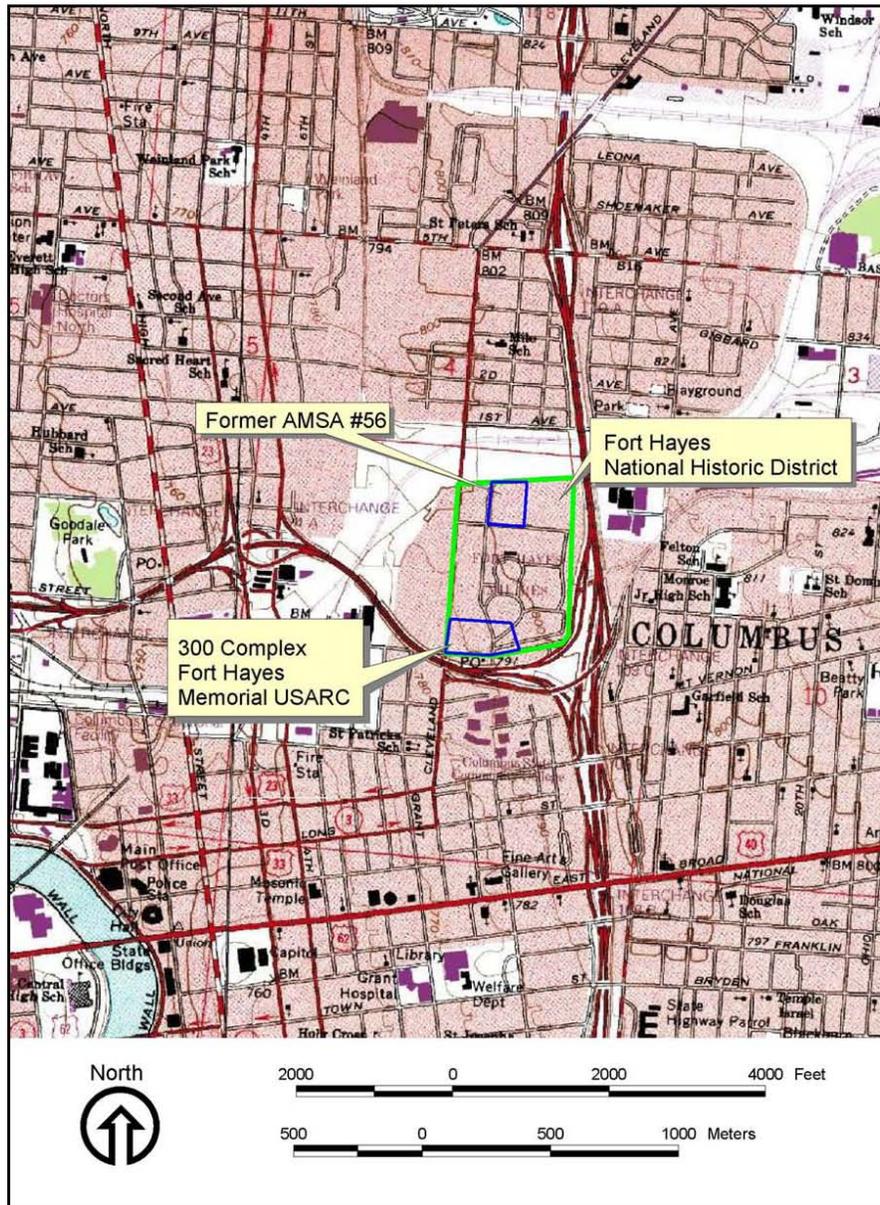


Figure 1. Southeast Columbus Quadrangle, Ohio-Franklin Co. USGS 7.5 Minute Series. Location of Fort Hayes National Historic District.

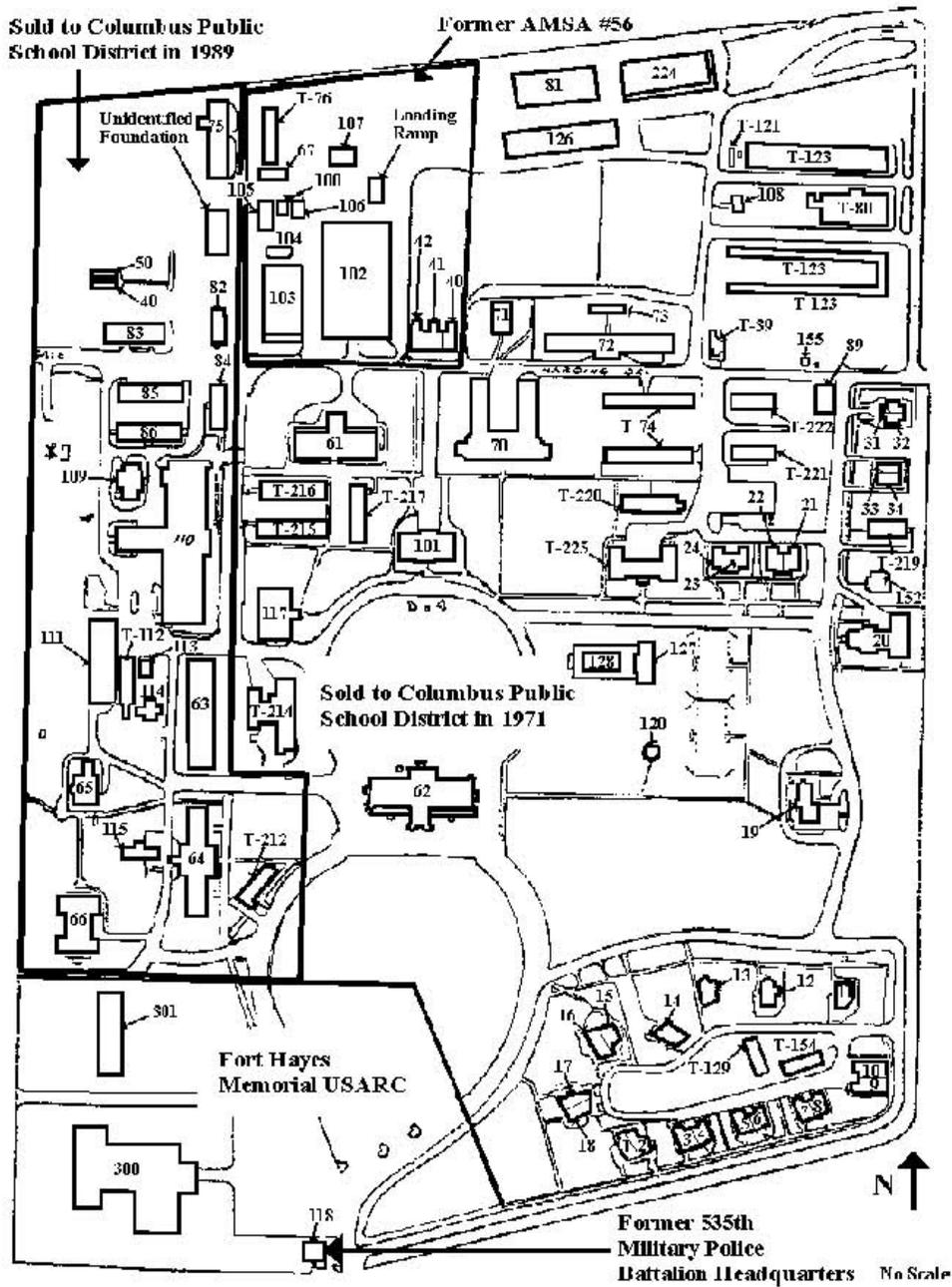


Figure 2. Map of Fort Hayes National Historical District (map modified from "Ohio Section 110 Inventory").

### *Scope of Project and Objectives*

This report is intended to update the existing historic architectural assessment and layaway plan for Fort Hayes and to provide new treatment recommendations. Ten buildings were included in the project: buildings 40 (shown as 40, 41 and 42 on Fort Hayes National Historic District map), 67, 100, 102, 103, 104, 105, 106, 107 and 118. The condition of each building and individual features were assessed during field survey. Individual building reports include a narrative description of the building with photographs, recommended treatments, a building feature list, and a priority list for treatment recommendations.

The objectives of this project have been:

- to assess the condition of each of the ten buildings listed above;
- to provide a narrative description and photographic documentation of each building;
- to identify and prioritize elements needing treatment;
- to provide treatment recommendations for each building; and
- to provide adaptive reuse suggestions.

### *Discussion of Findings*

#### *General Site and Building Condition*

The overall condition of the ten buildings at Fort Hayes Historic District that are included in this evaluation is fair. The buildings are in varying stages of deterioration, but all show signs of disrepair. Several of the buildings are displaying roof framing and/or sheathing failure that warrants immediate attention. Gutters and downspouts have recently been replaced throughout the site. Water is disposed of from some of the downspouts at grade, causing wet ground conditions and presenting opportunity for basement infiltration and rising damp. Most downspouts throughout the site and some gutters on the smaller buildings were replaced last year, during the reroofing campaign of Building 118. The eaves and cornices on the larger buildings, except Building 118, are in poor condition.

Window openings have been covered with plywood in order to protect the interiors of the buildings and any remaining window sashes, of which there are few. Many doors have also been covered with or completely replaced by plywood. All remaining wooden door and window elements have experienced paint failure and, as a result, deterioration and wood rot has ensued to greater or lesser degree.

Overall, the masonry is in good condition. The foundations of a few buildings show signs of erosion, but not to a significant degree. The bricks on Buildings 40 and 118 have been sandblasted and show pitting. This has reduced the lifespan of the brick, but is not cause for immediate concern. There are signs of efflorescence and discoloration due to staining on the masonry throughout the site. There is damage to the bricks and significant mortar loss on all facades of Building 105.

For the most part, the buildings are structurally sound, but there are structural issues that must be addressed. Most notably, the roof structure of Building 103 is in a severe state of deterioration and is threatening collapse within the foreseeable future.

Most of the interiors of the buildings on site are unfurred and uninsulated, as they were originally. Those that have been finished have plaster damage. There is paint failure throughout the building interiors. The paint most likely contains lead and abatement will be required. Building 104 had termite damage in the floor, but it has not spread beyond a very localized area. All interior finishes are in poor condition and will require renovation.

#### *Condition Assessment Definitions*

In the interest of consistency and clarity, the definitions used in this report are the same as those used in the condition assessment, stabilization and layaway plan completed in 2000. The definitions are based on terms outlined by the National Park Service Inventory Condition Assessment Program (ICAP), which is a computer software program that focuses on gathering inventory and major assessment data on buildings.

#### *Qualitative Condition Ratings*

**Good** - This rating indicates that:

- a) routine maintenance should be sufficient to maintain the current condition; and/or
- b) a cyclic maintenance or repair/rehabilitation project is not specifically required to maintain the current condition or correct deficiencies.

**Fair** - This rating indicates that:

- a) the feature generally provides an adequate level of service to operations, but
- b) the feature requires more than routine maintenance attention.
- c) This rating also indicates that cyclic maintenance or repair/rehabilitation work may be required in the future.

**Poor** - This indicates that the feature is in need of immediate attention. This rating also indicates that:

- a) routine maintenance is needed at a much higher level of effort to meet significant safety and legal requirements.
- b) cyclic maintenance should be scheduled for the current year and/or
- c) a special repair/rehabilitation project should be requested consistent with park requirements, priorities, and long term management objectives.

*Maintenance Deficiency Priority Ratings*

**Critical – (Immediate)**

- (a) This rating defines an advanced state of deterioration which has resulted in the failure of a feature or will result in the failure of a feature *if not corrected within 1 to 3 years*; or
- (b) There is accelerated deterioration of adjacent or related materials or systems as a result of the feature's deficiencies *if not corrected within 1 to 3 years*; or
- (c) There is an immediate threat to the health and / or safety of the user; or
- (d) There is a failure to meet a legislated requirement.

**Serious – (Short Term)**

- (a) This rating defines a deteriorated condition that if not corrected *within 4 to 6 years* will result in the failure of the feature; or
- (b) A threat to the health and / or safety of the user may *occur within 4 to 6 years* if the ongoing deterioration is not corrected; or
- (c) There is ongoing deterioration of adjacent or related materials and / or features as a result of the feature's deficiency.

**Minor – (Long Term)**

- a) This rating indicates standard preventative maintenance practices and preservation methods have not been followed; or
- b) There is reduced life expectancy of affected adjacent or related materials and / or systems *within 7 to 10 years and beyond*; or
- c) There is a condition with a long term impact *within 7 to 10 years and beyond*.

**FORT HAYES NATIONAL HISTORIC DISTRICT, COLUMBUS, OHIO**  
**Condition Assessment, Stabilization and Layaway Plan Update**

**PRIORITY RATING SUMMARY SHEET**  
**OVERALL SITE PRIORITY LIST**

This chart is a compilation of the individual building priority rating summary sheets. The tasks listed below are ranked in order from highest priority to maintain the stability and use potential of the site. The chart below contains only issues that are of immediate or short term priority. Those features that were listed as long term priority do not require any attention in the foreseeable future and have, therefore, been left out of the task list. Note that this summary sheet as well as the individual building priority rating summary sheets have been updated as a result of the current fieldwork.

Task No.	Bldg No.	Feature Location	Feature Name	Condition Rating	Priority Rating	Layaway Priority
1	102	Exterior Envelope	Roof	Poor	Critical	Immediate
2	102	Exterior Envelope	Cornice, Roof Drainage System	Poor	Critical	Immediate
3	103	Structure	Roof	Poor	Critical	Immediate
4	103	Exterior Envelope	Roof	Poor	Critical	Immediate
5	103	Exterior Envelope	Porch	Poor	Critical	Immediate
6	103	Exterior Envelope	Eaves	Poor	Critical	Immediate
7	105	Structure	Roof	Poor	Critical	Immediate
8	105	Exterior Envelope	Roof	Poor	Critical	Immediate

Task No.	Bldg No.	Feature Location	Feature Name	Condition Rating	Priority Rating	Layaway Priority
9	40	Exterior Envelope	Cornice, Roof Drainage System	Poor	Critical	Immediate
10	105	Exterior Envelope	Walls	Poor	Critical	Short Term
11	105	Structure	Walls	Poor	Critical	Short Term
12	67	Structure	Roof	Poor	Serious	Short Term
13	67	Exterior Envelope	Roof	Fair	Serious	Short Term
14	67	Exterior Envelope	Chimney	Poor	Serious	Short Term
15	103	Exterior Envelope	Walls	Fair	Minor	Short Term
16	105	Exterior Envelope	Chimney	Fair	Minor	Short Term
17	118	Exterior Envelope	Walls	Fair	Minor	Short Term
18	118	Exterior Envelope	Wall Openings	Fair	Minor	Short Term
19	118	Exterior Envelope	Porch	Fair	Minor	Short Term
20	118	Structure	Foundation	Good	Minor	Short Term
21	118	Interior	General	Fair	Serious	Short Term
22	All	Exterior Envelope	Wall Openings	Poor	Minor	Short Term
23	All	Interior	General	Poor	Minor	Short Term

FORT HAYES NATIONAL HISTORIC DISTRICT, COLUMBUS, OHIO  
 Condition Assessment, Stabilization and Layaway Plan Update  
**BUILDING 118**

FACID OH013, FAC EXISTING No. CO118, CAT CODE 1714002, 1,194 SQFT.



Figure 1. South facade of Building 118, showing porch.

***Building Description and Existing Conditions***

Building 118 is in good condition. The roof (including the skylight removal) and drainage system were replaced in the Fall of 2003 and are in good condition. However, one of the downspouts empties at grade onto the sidewalk next to the building. In the winter months, the discharge freezes and creates a slipping hazard on site. The skylight that had been added to the building was removed and the roof was reframed.

The building foundation is sound, as are the masonry walls. However, the exterior of the building was sandblasted, leaving the bricks pitted and decreasing the lifespan of the brick. There is also a small amount of mortar loss. Deterioration of the mortar has been accelerated by the sandblasting. All of the windows and doors are in place and have not been covered with plywood, although the building is vacant. The windows and doors are experiencing paint failure and some resulting wood rot. Originally, the primary entrance was located on the south elevation at the porch. The date of the primary entry removal is unknown. The doors have since been converted to windows and the primary entrance moved to the east facade. This change has seriously compromised the original scheme of the building. Most of the pavers have been removed from the porch floor, leaving the fill exposed. Interior finishes and fixtures are in disrepair.



Figure 2. North facade. Sandblasting damage and mortar loss is visible.



Figure 3. New roof framing replacing out-of-period skylight.

### *Recommendations*

Building 118 requires little treatment before it can be reused. Interior partitions can be reconfigured if required by reprogramming. The space could easily accommodate offices or a welcome center for the site.

For the reuse of the building, an Building Management Plan is advised. This plan would thoroughly document and identify all of the existing materials, fixtures, building plan, etc. prior to the design and construction of any renovations

or reorganization of the space. The plan would also provide a schedule or task list of regular maintenance protocols and procedures for the building.

If the building is to remain vacant or unused, a layaway plan would include the covering of the windows with plywood, securing the entrance, plus the immediate and short term recommendations provided below.

#### *Immediate*

The downspout that is currently discharging onto the sidewalk must be rerouted into a boot for subsurface drainage in order to prevent water at grade.

#### *Short Term*

Exterior masonry walls must be repointed at select locations using a mortar mix compatible with the original to prevent further deterioration. Windows and doors should be salvaged where possible. All others should be replaced to match original. Porch paving material should be replaced with original or compatible pavers. The porch columns require repainting. All interior surfaces require refinishing prior to reuse. Lead paint abatement may be necessary before reactivating the space.

**FORT HAYES NATIONAL HISTORIC DISTRICT, COLUMBUS, OHIO**  
**Condition Assessment, Stabilization and Layaway Plan Update**

Building Feature Master List: The features required to assess each building have been selected from the Building Feature Master List, which is included in the Condition Assessment, Stabilization and Layaway Plan for the site. The items listed for each building are to be used as a framework for annual inspections to monitor conditions.

**BUILDING 118**

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**SITE** - *See report introduction*

**INTERIOR**

General Description

**STRUCTURAL**

Foundation  
Walls  
Roof

Floors  
Walls and ceilings  
Stairs  
Architectural millwork or  
detailing

**EXTERIOR ENVELOPE**

Walls  
Roof  
Cornice, Roof drainage system  
Chimney  
Wall openings  
    Foundation openings  
    Windows  
    Doors  
Porches and Projections

**FORT HAYES NATIONAL HISTORIC DISTRICT, COLUMBUS, OHIO**  
**Condition Assessment, Stabilization and Layaway Plan Update**

**PRIORITY RATING SUMMARY SHEET**  
**BUILDING 118**

<b>Feature Location</b>	<b>Feature Name</b>	<b>Material Type</b>	<b>Condition Rating</b>	<b>Priority Rating</b>	<b>Layaway Priority</b>
Exterior Envelope	Walls	Brick, mortar	Fair	Minor	Short Term
Exterior Envelope	Roof	Asphalt Shingle	Good	Minor	Long Term
Exterior Envelope	Cornice, Roof drainage system	Wood, Metal	Good	Minor	Long Term
Exterior Envelope	Chimney	Brick	Good	Minor	Long Term
Exterior Envelope	Wall Openings	Wood	Fair	Minor	Short Term
Exterior Envelope	Porch	Masonry	Fair	Minor	Short Term
Structure	Foundation	Stone	Good	Minor	Short Term
Structure	Wall	Brick	Good	Minor	Long Term
Structure	Roof	Wood	Good	Minor	Long Term
Interior	General Description	Various	Fair	Serious	Short Term

BUILDING 118 DESCRIPTION FORM  
OHIO SECTION 110 SURVEY REPORT (1999)

## OHIO SECTION 110 REPORT - BUILDING INFORMATION

Identification Number: OH013/39220<sup>1</sup>

Former AMSA #56 & former 535th Military Police Battalion Headquarters  
Fort Hayes Historic District

530 Jack Gibbs Blvd., Columbus, Franklin County, Ohio 43215-1975

Telephone Number: (614) 692-5451

Southeast Columbus Quadrangle, Ohio, USGS 7.5 Minute Series, T5N R18W,  
Section 9 (Figure 132)

UTM: Z17, 330048E, 4426774N

Present Owner/Occupant: The facility is owned by the US Government and controlled by the 88<sup>th</sup> RSC. Buildings associated with former AMSA #56 has been declared excess by the 88<sup>th</sup> RSC DSCEN Real Property Division.<sup>2</sup> Building 118, associated with former 535th Military Police Battalion Headquarters, is currently part of the Fort Hayes Memorial USARC.

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### Building 118 (CO118)

Building 118 was originally constructed as a gatehouse for the Columbus Barracks. It subsequently functioned as a guardhouse and later an administrative office for the former 535th Military Police Battalion Headquarters. Building 118 is currently considered to be part of the Fort Hayes Memorial USARC. Constructed in ca. 1898, it is a one-story modified T-shaped building with Italian Renaissance style architectural elements.<sup>93</sup> The building consists of red brick walls that rest upon a course rubble and rusticated stone foundation. A porch is located along the south side of the building at the location of the original entrance that consisted of two pedestrian doors that are currently block with bricks (Figures 202 & 203). Four Tuscan columns support the half-hipped wooden tongue and groove roof that covers the porch. The porch floor is covered with an out-of-period glazed tile (Figure 204). A historic period hanging lamp is mounted on the interior porch ceiling (Figure 205).

The current entrance is located on the east side of the building and consists of a metal pedestrian door cast with six inset panels, a transom, and sidelights (Figure 206).<sup>94</sup> An out-of-period metal hood awning covers the entryway. A series of tall rectangular one-over-one light double-hung windows with plain stone lug lintels and plain stone lug sills are located around the perimeter of the building (Figure 207). A small rectangular one-over-one light double-hung window is located on the north side of the building (Figure 208).<sup>95</sup> Metal hood awnings are located above the windows on the east side of the building. An entablature with dentils and an undecorated frieze are located under the roof around the perimeter of the building (Figure 210).<sup>96</sup> A modified-hipped roof with slight overhanging eaves covers the building. An out-of-period skylight has been added at the peak of the roof. A mid-slope brick chimney with a decorative chimney cap is located on the south side of the roof.<sup>97</sup>

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Fort Hayes National Historical District / Columbus, Ohio  
Ohio Section 110 Survey Report, Fort McCoy Archeological Center

## OHIO SECTION 110 REPORT - BUILDING INFORMATION

Identification Number: OH013/39220<sup>1</sup>

Former AMSA #56 & former 535th Military Police Battalion Headquarters  
Fort Hayes Historic District

530 Jack Gibbs Blvd., Columbus, Franklin County, Ohio 43215-1975

Telephone Number: (614) 692-5451

Southeast Columbus Quadrangle, Ohio, USGS 7.5 Minute Series, T5N R18W,  
Section 9 (Figure 132)

UTM: Z17, 330048E, 4426774N

Present Owner/Occupant: The facility is owned by the US Government and controlled by the 88<sup>th</sup> RSC. Buildings associated with former AMSA #56 has been declared excess by the 88<sup>th</sup> RSC DSCEN Real Property Division.<sup>2</sup> Building 118, associated with former 535th Military Police Battalion Headquarters, is currently part of the Fort Hayes Memorial USARC.

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### FOOTNOTES BUILDING 118

<sup>93</sup> Building 118 (a component of the Fort Hayes Memorial USARC) appears to have been enlarged at an unknown date and further research would be required to determine when the extensive modifications were made to the building. The original front of the building was located on the east wall of the building and consisted of two pedestrian doors within an enclosed porch. The main entrance to the building is currently located on the south side of the building and contains a metal pedestrian door covered by a metal hood awning.

<sup>94</sup> The entrance on the south side of the building appears to have been altered at an unknown date.

<sup>95</sup> Several of the windows on the building have been modified, with openings on the east and north sides of the building having had exceptionally noticeable alterations.

<sup>96</sup> The soffit on the west wall of the building appears to be damaged and "rotting" off the building (Figures 209 & 210).

<sup>97</sup> Building 118 appears to be in fair condition, however it has been modified from its original appearance and includes: blocked in original entrances, altered windows, and the construction of a skylight. Building 118 has been singly listed on the NRHP since 1973, however the modifications made to its exterior façade leaves its historic integrity in doubt.

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## APPENDIX D

# EIFS REPORT

The Economic Impact Forecast System (EIFS) model, developed by the United States Army Corp of Engineers (USACE), Construction Engineering Research Laboratory (CERL), was used to assess the impacts of each alternative on the economy. The EIFS model was used to project both the short-term temporary regional economic impacts of project construction, and long-term economic impacts of the increase in DSCC operations. The EIFS model provides a systematic method for evaluating the regional socioeconomic effects of government actions, particularly military actions.

The EIFS model also includes a Rational Threshold Value (RTV) profile that is used in conjunction with the forecast models to assess the degree of the impacts of an activity for a specific geographic area. For each variable (business volume, employment, income, and population), the current time-series data available from the United States Department of Congress Bureau of Economic Analysis are calculated along with the annual change, deviation from the average annual change, and the percent deviation for each of these variables, which then defines a threshold for significant annual regional economic impacts for a variable. Within the EIFS model the RTV is calculated for each of these variables when assessing the regional economic impacts of a specific project. If the RTV for a particular variable associated with the impacts of a specific project exceeds the maximum annual historic deviation for that variable, then the economic impacts are considered to be significant. If the RTV for a variable is less than the maximum annual historic deviation for that variable, then the regional economic impacts are not considered significant.

## EIFS REPORT

## PROJECT NAME

Fort Hayes Memorial USARC: Construction, Medium-High Intensity Reuse Alternative

## STUDY AREA

39041 Delaware, OH  
 39045 Fairfield, OH  
 39049 Franklin, OH  
 39089 Licking, OH  
 39097 Madison, OH  
 39117 Morrow, OH  
 39129 Pickaway, OH  
 39159 Union, OH

## FORECAST INPUT

Change In Local Expenditures	\$39,480,000
Change In Civilian Employment	450
Average Income of Affected Civilian	\$40,000
Percent Expected to Relocate	0
Change In Military Employment	0
Average Income of Affected Military	\$0
Percent of Military Living On-post	0

## FORECAST OUTPUT

Employment Multiplier	4.81	
Income Multiplier	4.81	
Sales Volume - Direct	\$53,952,000	
Sales Volume - Induced	\$205,557,100	
Sales Volume - Total	\$259,509,100	0.27%

Income - Direct	\$24,800,180	
Income - Induced)	\$35,405,890	
Income - Total(place of work)	\$60,206,070	0.15%
Employment - Direct	660	
Employment - Induced	799	
Employment - Total	1459	0.14%
Local Population	0	
Local Off-base Population	0	0%

**RTV SUMMARY**

	Sales Volume	Income	Employment	Population
Positive RTV	10.25 %	9.45 %	2.37 %	1.02 %
Negative RTV	-6.48 %	-4.99 %	-3.36 %	-0.64 %

## EIFS REPORT

## PROJECT NAME

Fort Hayes Memorial USARC: Operations, Medium-High Intensity Reuse Alternative

## STUDY AREA

39041 Delaware, OH  
 39045 Fairfield, OH  
 39049 Franklin, OH  
 39089 Licking, OH  
 39097 Madison, OH  
 39117 Morrow, OH  
 39129 Pickaway, OH  
 39159 Union, OH

## FORECAST INPUT

Change In Local Expenditures	\$0
Change In Civilian Employment	1392
Average Income of Affected Civilian	\$40,000
Percent Expected to Relocate	0
Change In Military Employment	0
Average Income of Affected Military	\$0
Percent of Military Living On-post	0

## FORECAST OUTPUT

Employment Multiplier	4.81	
Income Multiplier	4.81	
Sales Volume - Direct	\$44,766,720	
Sales Volume - Induced	\$170,561,200	
Sales Volume - Total	\$215,327,900	0.22%

Income - Direct	\$55,680,000	
Income - Induced)	\$29,378,070	
Income - Total(place of work)	\$85,058,080	0.21%
Employment - Direct	1566	
Employment - Induced	663	
Employment - Total	2229	0.22%
Local Population	0	
Local Off-base Population	0	0%

#### RTV SUMMARY

	Sales Volume	Income	Employment	Population
Positive RTV	10.25 %	9.45 %	2.37 %	1.02 %
Negative RTV	-6.48 %	-4.99 %	-3.36 %	-0.64 %

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