

FINDING OF NO SIGNIFICANT IMPACT

ENVIRONMENTAL ASSESSMENT FOR THE CONSTRUCTION AND OPERATION OF A BATTALION HEADQUARTERS FOR THE U.S. ARMY PRIORITY AIR TRANSPORT AT JOINT BASE ANDREWS-NAVAL AIR FACILITY WASHINGTON, MARYLAND

INTRODUCTION

The attached environmental assessment (EA) examines the potential impacts on the environment from the Proposed Action to construct and operate a battalion headquarters for the U.S. Army Priority Air Transport (USAPAT) on Joint Base Andrews-Naval Air Facility Washington, Maryland (Andrews). Three action alternatives and a No Action Alternative were assessed in the attached EA. All resources were considered in the impact analysis.

PURPOSE OF AND NEED FOR THE PROPOSED ACTION

The purpose of the Proposed Action is to provide a facility that is adequate to support the current USAPAT battalion and its mission and special functions. The proposed action is needed because USAPAT occupies Building 1778, a temporary facility of approximately 6,900 square feet (SF) that was built in 1988 to accommodate a small detachment of Soldiers. USAPAT is now a much larger organization with more than 70 personnel assigned to Andrews. The current structure's size, configuration, and condition are inadequate to meet USAPAT's mission requirements and to house the battalion, providing only approximately 50 percent of the battalion's mission and special needs space requirements.

DESCRIPTION OF THE PROPOSED ACTION

Under the Proposed Action, USAPAT would construct a 12,000-square-foot modified standard-design, small-battalion headquarters facility with classrooms that would also provide conference and training space, an industrial kitchen, and associated cold and dry storage for mission special use. The new facility would be constructed to meet current battalion needs; no increase in the number of USAPAT personnel at JBA is anticipated. Additionally, no change in USAPAT operations is anticipated; the operation and activities conducted in the new facility would be substantially the same as those now conducted out of Building 1778. Demolition of Building 1778 (approximately 7,000 SF) would be required. Three locations on JBA are proposed for construction of the facility in the EA.

NO ACTION ALTERNATIVE

Under the No Action Alternative, there would be no change from existing conditions at JBA. The USAPAT functions at JBA would continue to operate in antiquated, dispersed facilities that meet only approximately 50 percent of the mission and special needs space requirements.

ALTERNATIVES CONSIDERED BUT ELIMINATED FROM FURTHER CONSIDERATION

As part of the NEPA process, reasonable alternatives to the Proposed Action were considered. Seven locations were proposed for the new USAPAT facility. Three of the proposed locations were along the flight line, and although proximity to the flight line is preferred, the 2010 General Plan Update for

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14. ABSTRACT The purpose of the Proposed Action is to provide a facility adequate to meet USAPAT's mission requirements. USAPAT currently occupies Building 1778, a temporary facility of approximately 6,900 square feet (SF) that was built in 1988 to accommodate a small detachment of Soldiers. USAPAT is now a much larger organization with more than 70 personnel assigned to JBA. The size, configuration, and condition of Building 1778 are inadequate to meet USAPAT's mission requirements. A larger, modern facility is needed so that the battalion can train properly and conduct its mission responses unhampered. The phone lines are analog, there are not enough LAN ports in the building, both male and female latrines are inadequate, and heating and air conditioning run off three separate units that are antiquated and prone to breaking down at seasonal changes. Under the No Action Alternative, no new facility would be constructed and the USAPAT functions at JBA would continue to operate out of Building 1778. This EA has been prepared to evaluate the Proposed Action and the No Action Alternative. All resources are considered in the impact analysis.					
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16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 122	19a. NAME OF RESPONSIBLE PERSON
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Andrews emphasizes placing activities that are not essential to flight line operations off the flight line. Extensive renovations and upgrades are planned for the west flight line, and locating the new USAPAT facility at any of these three locations would have created conflicts with these planned renovations. Some proposed sites would not have been able to meet AT/FP setback requirements. For these reasons, these locations were eliminated from further consideration. Another location at the southwest corner of Arnold Avenue and Westover Drive was eliminated from consideration because the property is needed for the expansion of the Main Exchange.

ENVIRONMENTAL IMPACTS OF THE PROPOSED ACTION

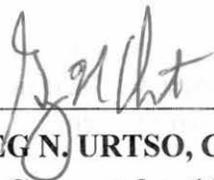
Analysis performed in the EA addressed potential effects on the natural and human environments. The analysis indicates that implementing the Proposed Action would have no significant direct, indirect, or cumulative effects on the quality of the natural or human environment.

PUBLIC REVIEW AND INTERAGENCY COORDINATION

Federal, state, and local agencies were afforded the opportunity to comment on the draft EA and the draft FONSI. A Notice of Availability of the draft EA and draft FONSI was published in the Upper Marlboro *Gazette* on September 20 and in the Joint Base Andrews *Gazette* on September 21, 2012. A copy of the draft EA and draft FONSI was available for review at the Upper Marlboro Branch Library of the Prince George's County Memorial Library System at 14730 Main Street in Upper Marlboro, Maryland. A copy was also available at the JBA Library at 1642 Brookley Ave, and the draft EA and draft FONSI were available online at <http://www.andrews.af.mil/library/environmental/index.asp>. Comments on the EA and proposed action were received from the Maryland Department of the Environment, the Maryland Department of Planning, the Prince George's County Department of Public Works and Transportation, and the National Capital Planning Commission. None of the comments received indicated that the Proposed Action would have a significant impact on the environment.

FINDING OF NO SIGNIFICANT IMPACT

After review of the EA prepared in accordance with the requirements of NEPA, CEQ regulations, and Environmental Impact Analysis Process (EIAP), 32 *Code of Federal Regulations* 989.15(e), as amended, I have determined that the Proposed Action would not have a significant impact on the quality of the human or natural environment and, therefore, an Environmental Impact Statement is not required. This decision has been made after taking into account all submitted information, and considering a full range of practicable alternatives that would meet project requirements and are within the legal authority of the USAF.



GREG N. URTSO, Colonel, USAF
Vice Commander, 11th Wing

31 Jan 13

Date

**Environmental Assessment for the
Construction and Operation of a Battalion Headquarters for the
U.S. Army Priority Air Transport**

at

**Joint Base Andrews-Naval Air Facility Washington
Prince George's County, Maryland**

Final



Prepared for:

**DEPARTMENT OF THE AIR FORCE
11 CES/CEA
3466 North Carolina Avenue
Joint Base Andrews-Naval Air Facility Washington
Prince George's County, Maryland**

December 2012

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COVER SHEET

FINAL ENVIRONMENTAL ASSESSMENT FOR THE CONSTRUCTION AND OPERATION OF A BATTALION HEADQUARTERS FOR THE U.S. ARMY PRIORITY AIR TRANSPORT AT JOINT BASE ANDREWS-NAVAL AIR FACILITY WASHINGTON, MARYLAND

Responsible Agencies: U.S. Army Priority Air Transport Command (USAPAT), Air Force District of Washington (AFDW), and the 11th Wing (11 WG), Joint Base Andrews-Naval Air Facility Washington, Maryland.

Proposed Action: Under the Proposed Action, the Army would construct a small-battalion headquarters facility for the US Army Priority Air Transport Command (USAPAT) on Joint Base Andrews-Naval Air Facility Washington, Maryland (Andrews). The new USAPAT facility would be a modified, standard-design, small-battalion headquarters with classrooms that would provide conference and training space, an industrial kitchen, and associated cold and dry storage space for mission special use. Once construction of the new headquarters facility is complete, Building 1778, out of which USAPAT currently operates, would be demolished.

Report Designation: Final Environmental Assessment (EA).

Written comments and inquiries regarding this document should be directed to: Ms. Anne Hodges, 11 CES/CEAO, 3466 North Carolina Avenue, Andrews AFB, MD 20762-4803.

Abstract: The purpose of the Proposed Action is to provide a facility adequate to meet USAPAT's mission requirements. USAPAT currently occupies Building 1778, a temporary facility of approximately 6,900 square feet (SF) that was built in 1988 to accommodate a small detachment of Soldiers. USAPAT is now a much larger organization with more than 70 personnel assigned to JBA. The size, configuration, and condition of Building 1778 are inadequate to meet USAPAT's mission requirements. A larger, modern facility is needed so that the battalion can train properly and conduct its mission responses unhampered. The phone lines are analog, there are not enough LAN ports in the building, both male and female latrines are inadequate, and heating and air conditioning run off three separate units that are antiquated and prone to breaking down at seasonal changes.

Under the No Action Alternative, no new facility would be constructed and the USAPAT functions at JBA would continue to operate out of Building 1778.

This EA has been prepared to evaluate the Proposed Action and the No Action Alternative. All resources are considered in the impact analysis.

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Acronyms and Abbreviations

11 CES/CEAO	11th Civil Engineer Squadron/Asset Management Optimization Element
AAFES	Army & Air Force Exchange Service
AT/FP	antiterrorism/force protection
B	building
CEQ	Council on Environmental Quality
CFR	<i>Code of Federal Regulations</i>
CO	carbon monoxide
COMAR	Code of Maryland Regulation
DoD	Department of Defense
EA	environmental assessment
EIFS	Economic Impact Forecast System
EISA	Energy Independence and Security Act of 2007
EO	Executive Order
EPA	U.S. Environmental Protection Agency
HVAC	Heating Ventilation and Air Conditioning
I	interstate
IICEP	Interagency and Intergovernmental Coordination for Environmental Planning
JBA	Joint Base Andrews
LEED	Leadership in Energy and Environmental Design
MDE	Maryland Department of the Environment
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NO ₂	nitrogen dioxide
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
O ₃	ozone
PCPI	per capita personal income
PM ₁₀	particulate matter
PM _{2.5}	fine particulate matter
RCRA	Resource Conservation and Recovery Act
ROI	region of influence
RTV	rational threshold value
SF	square feet
SHPO	State Historic Preservation Office
SO ₂	sulfur dioxide
U.S.C.	<i>United States Code</i>
USAF	U.S. Air Force
USAPAT	U.S. Army Priority Air Transport Command
USPS	U.S. Postal Service
UST	underground storage tank

1 Purpose and Need for Action

1.1 Introduction

The US Army Priority Air Transport Command (USAPAT) proposes to construct a small-battalion headquarters facility on Joint Base Andrews (JBA)-Naval Air Facility Washington (formerly Andrews Air Force Base [Andrews AFB] (Andrews). Andrews is a 4,346-acre installation approximately 6 miles southeast of Washington, D.C. in Prince George's County, Maryland (see Figure 1-1). The total population living and working on Andrews, including partner units, is approximately 16,700 persons. This Environmental Assessment (EA) has been prepared to address the potential impacts related to the construction and operation of the battalion headquarters facility, including all associated permit requirements, and the demolition and disposal of Building 1778, out of which USAPAT currently operates. In addition, this EA identifies mitigation measures to minimize the potential environmental consequences associated with the implementation of the proposed action.

The new USAPAT facility would be a modified, standard-design, small-battalion headquarters with classrooms that would provide conference and training space, an industrial kitchen, and associated cold and dry storage space for mission special use.

This EA was prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, 42 *United States Code* (U.S.C.) 4321 *et seq.*, as amended, and the following regulations:

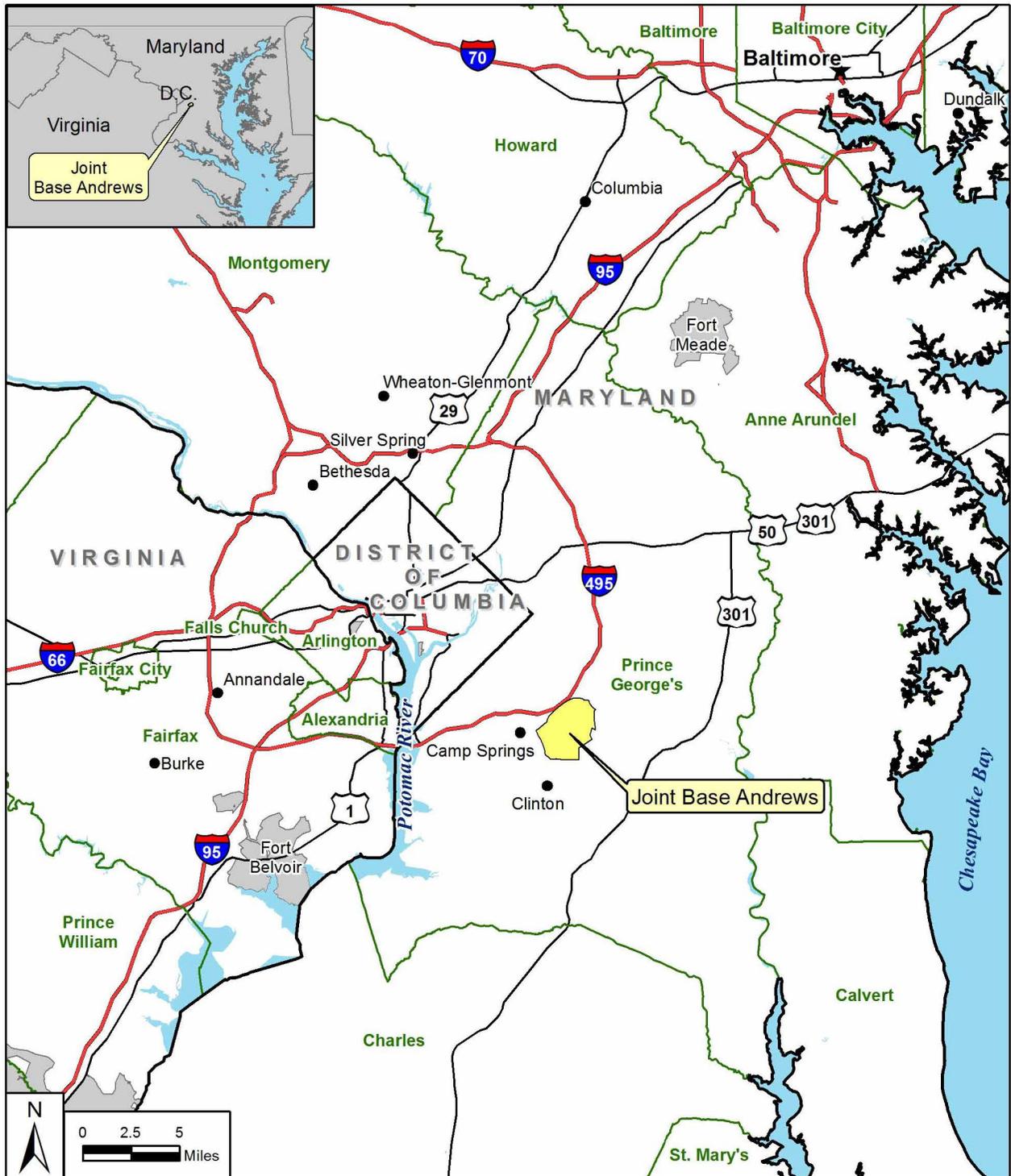
- Council on Environmental Quality (CEQ), 40 *Code of Federal Regulations* (CFR) §§ 1500-1508; and
- U.S. Air Force Environmental Impact Analysis Process, 32 CFR § 989.

1.2 USAPAT Mission

USAPAT, which is headquartered at JBA, is part of the Air Operations Group within the Army's Military District of Washington and Joint Force Headquarters National Capital Region. The USAPAT mission is to provide safe, secure, and reliable executive air transportation anywhere in the world for senior Army officials, such as the Secretary and Undersecretary of the Army, the Chief and Vice Chief of Staff of the Army, and any other users who may be designated by the Secretary of the Army. Depending on the aircraft and destination, flights are crewed with two (pilots) to five (two pilots, a flight engineer, and two flight stewards) personnel. Other personnel (a communications specialist or specially trained military-police Soldiers, for example) might also accompany the crew on USAPAT flights. Flight stewards prepare all in-flight meals for passengers for the duration of a flight, and must have provisions to prepare anything from simple sandwiches to five-course meals for passengers.

1.3 Need for Action

USAPAT occupies Building 1778, a temporary facility of approximately 6,900 square feet (SF) that was built in 1988 to accommodate a small detachment of Soldiers. USAPAT is now a much larger organization with more than 70 personnel assigned to JBA. The current structure's size, configuration, and condition are inadequate to meet USAPAT's mission requirements and to house the battalion, providing only approximately 50 percent of the battalion's mission and special needs space requirements. The phone lines are analog, there are not enough LAN ports for usage throughout the building, both male and female latrines with showers are inadequate, and heating and air conditioning run off three separate units that are antiquated and prone to breaking down at seasonal changes. Operating out of the current facility (Building 1778), the battalion's ability to train properly and to conduct mission responses is unnecessarily hampered and degraded.



Location Map

Figure 1-1

1.4 Objective of the Proposed Action

The objective of the proposed action is to provide a facility that is adequate to support the current USAPAT battalion and its mission and special functions. No increase in the number of personnel or change in USAPAT operations is proposed or anticipated. The new facility would provide approximately 12,000 SF of space, replacing the current facility, Building 1778, which provides only 7,000 SF of space for the USAPAT battalion.

1.5 Scope of the EA

This EA evaluates the potential impacts on the human and natural environments of the construction of a new facility to serve USAPAT at Andrews, USAPAT operations out of the new facility, and the demolition and disposal of Building 1778. The proposed action is evaluated to determine the potential for significant adverse impacts on each resource or resource area, including short- or long-term, direct or indirect, and cumulative adverse impacts.

Resources evaluated in this EA include land use, air quality, noise, geology and soils, water resources, biological resources, cultural resources, socioeconomic resources and environmental justice, infrastructure and utilities, hazardous materials and waste management, and safety and occupational health.

1.6 Decision to be Made

The Chairman of the Environmental Safety and Occupational Health Committee at JBA is responsible for deciding which alternative to adopt. The decision will be to either implement the proposed action or select a reasonable alternative, including No Action. If the No Action Alternative is selected, the USAPAT battalion headquarters would not be constructed. The decision will be based on the findings contained in this EA.

1.7 Public Review and Interagency Coordination

The Interagency and Intergovernmental Coordination for Environmental Planning (IICEP) process for the draft EA was initiated on September 20, 2012. Public and IICEP review of the draft EA was conducted from September 20, 2012 to October 21, 2012. A copy of the draft EA was available for review at the Upper Marlboro Branch Library of the Prince George's County Memorial Library System at 14730 Main Street, Upper Marlboro, Maryland 20772. A copy was also available at the JBA Library at 1642 Brookley Ave, and the draft EA and draft FONSI were available online at <http://www.andrews.af.mil/library/environmental/index.asp>.

Comments on the EA and proposed action were received from the Maryland Department of Planning (MDP), the Maryland Department of the Environment (MDE), the Prince George's County Department of Public Works and Transportation (PGDPW&T), and the National Capital Planning Commission (NCPC). None of the comments received indicated that the Proposed Action would have a significant impact on the environment.

MDP noted receipt of the document for review and distribution of the document to agencies. MDE noted the importance of complying with applicable State and federal laws and regulations relating to air quality and air pollution emissions, above ground or underground petroleum storage tanks, solid waste disposal and recycling, and the generation and handling of hazardous wastes. It also noted the importance of planning to maximize the use of carpools and public transit, carpool/vanpool parking, and public transportation. The MDE Science Services Administration noted that the proposed project is in the Piscataway Creek watershed, which is impaired by several substances and subject to regulations regarding the Clean Water Act.

PGDPW&T requested that the Air Force incorporate grading and stormwater design provisions of Prince George's County regulations in accordance with the stormwater management requirement of environmental site design to the maximum extent practicable, and noted that from a stormwater/environmental perspective, the preferred location for the new building is on D Street and Brookley Avenue.

Various personnel from NCPC responded, primarily agreeing with the conclusions presented in the EA. NCPC staff noted that a small but beneficial economic effect could be expected from the proposed action, that no adverse effects on cultural resources would be expected, and that any effect of the project on transportation resources in the county would be minimal.

Copies of comments received and responses to the comments are provided in Appendix D.

1.8 Regulatory Compliance and Permit Requirements

Table 1-1 lists the primary environmental permits, approvals, and agency consultation requirements associated with the proposed action, including the applicable statute, responsible agency and a brief description of each requirement. Table 1-1 also indicates which sections of the EA contain technical information relevant to each of the requirements.

In addition to the laws and regulations contained in Table 1-1, the following federal statutes also are relevant to the proposed action:

- Noise Control Act, 42 U.S.C. 4901 *et seq.*;
- Occupational Safety and Health Act, 29 U.S.C. 651 *et seq.*;
- Solid Waste Disposal Act (more commonly known as Resource Conservation and Recovery Act), 42 U.S.C. 6901 *et seq.*;
- Toxic Substances Control Act, 15 U.S.C. 2601 *et seq.*;
- National Capital Planning Act of 1952, 40 USC § 8722 (b) (1); and
- Energy Independence and Security Act of 2007 (Public Law 110-140).

The proposed action also must comply with various Executive Orders (EOs) including the following:

- EO 11514, *Protection and Enhancement of Environmental Quality*; and
- EO 11988, *Floodplain Management*;
- EO 11990, *Protection of Wetlands*;
- 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 13508, Chesapeake Bay Protection and Restoration;
- EO 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*.

Appendix A includes the Interagency and Intergovernmental Coordination for Environmental Planning letter distribution list. All contractors and subcontractors must comply with all applicable state and federal laws and regulations, including the requirements outlined in the *Andrews AFB Environmental Protection Standards for Contracts* (Andrews AFB 2009).

**Table 1-1
Environmental permits, approvals, and coordination**

Statute	Requirement	Agency	Description	Applicability				Section
				Alt. 1	Alt. 2	Alt. 3	NAA	
Federal								
Clean Air Act (42 U.S.C. 7401 <i>et seq.</i>)	Air Conformity Determination (40 CFR 93) Air Quality Permit to Construct (COMAR 26.11.02)	MDE	Federal agencies must demonstrate that actions in nonattainment areas conform to the applicable State Implementation Plan. Approval under an Air Quality Permit to Construct is required prior to construction and/or installation or modification of the regulated emission source.	Yes	Yes	Yes	No	4.2
Clean Water Act (33 U.S.C. 1251 <i>et seq.</i>)	NPDES General Construction Permit (40 CFR 122 <i>et seq.</i> ; COMAR 26.08.01 <i>et seq.</i>)	MDE	Approval under a General NPDES Permit for Construction Activity is required for stormwater discharges from new construction activities disturbing 1 acre or more. (NPDES Number MDR10, State Discharge Permit Number 09GP)	Yes	Yes	Yes	No	4.4, 4.5
	Section 404, Permits to Discharge Dredged or Fill Materials	USACE	Projects with the potential to impact Clean Water Act-defined "waters of the United States" require a USACE issued permit to proceed.	No	No	Yes	No	4.9
National Historic Preservation Act (16 U.S.C. 470 <i>et seq.</i>)	Section 106 Consultation (36 CFR 800)	SHPO	Actions sponsored, funded, or permitted by federal agencies must be reviewed by the SHPO for possible effects on historic or archaeological resources eligible or potentially eligible for listing on the National Register of Historic Places.	No	No	No	No	4.10

**Table 1-1
Environmental permits, approvals, and coordination**

Statute	Requirement	Agency	Description	Applicability				Section
				Alt. 1	Alt. 2	Alt. 3	NAA	
Endangered Species Act (16 U.S.C. 688 <i>et seq.</i>)	Section 7 Consultation (50 CFR 17)	USFWS	Actions sponsored, funded, or permitted by federal agencies must be reviewed by the USFWS for possible effects on threatened or endangered species.	No	No	No	No	4.9
Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. 9601 <i>et seq.</i>)	Site inspection, feasibility study, and remedial action	EPA or MDE	Authorizes long-term remedial response actions at sites suspected of being affected by releases or threatened releases of hazardous substances that are serious but not immediately life threatening.	Yes	Yes	Yes	No	4.8
Andrews Air Force Base Environmental Management System (EMS)	Contractor environmental regulations and requirements	JBA	Contractors shall comply with all regulations and requirements identified in the EMS	Yes	Yes	Yes	No	N/A
State								
Article – Environmental Title 4, Subtitle 1, Annotated Code of Maryland	Soil Erosion and Sediment Control Plan Approval (COMAR 26.17.01)	MDE	Required for actions that disturb more than 5,000 square feet of land.	Yes	Yes	Yes	No	4.4, 4.5
Article – Environmental Title 4, Subtitle 2, Annotated Code of Maryland	Stormwater Management Plan Approval (COMAR 26.17.02)	MDE	Required for actions that disturb more than 5,000 square feet of land.	Yes	Yes	Yes	No	4.5

**Table 1-1
Environmental permits, approvals, and coordination**

Statute	Requirement	Agency	Description	Applicability				Section
				Alt. 1	Alt. 2	Alt. 3	NAA	
WSSC Plumbing and Fuel Gas Code	Discharge Authorization Permit (DAP) 00001	WSSC	The DAP outlines specific wastewater discharge requirements and limitations from industrial facilities. The DAP is based on WSSC Plumbing and Gas Code; the DAP may have to be amended so the facility can discharge to the WSSC system.	Yes	Yes	Yes	No	N/A
	Food Service Establishment (FSE) Wastewater Discharge Permit	WSSC	Addresses requirements for discharges from food service operations (food, oils, and greases).	Yes	Yes	Yes	No	N/A

Note: COMAR: Code of Maryland Regulations; JBA: Joint Base Andrews, Commanding Officer, 11th Wing Civil Engineering Squadron (CES)/CEAO; MDE: Maryland Department of the Environment; NPDES: National Pollutant Discharge Elimination System; SHPO: Maryland State Historic Preservation Officer, Maryland Historic Trust; EPA: U.S. Environmental Protection Agency; USACE: U.S. Army Corps of Engineers (Baltimore District); USFWS: U.S. Fish and Wildlife Service, Chesapeake Bay Field Office; WSSC: Washington Suburban Sanitary Commission.

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2 Description of the Proposed Action and Alternatives

2.1 Proposed Action

Under the proposed action, USAPAT would construct a 12,000 SF modified standard-design, small-battalion headquarters facility with classrooms that would also provide conference and training space, an industrial kitchen, and associated cold and dry storage for mission special use. The facility would measure approximately 50 feet by 120 feet and would be two stories, with a total building footprint of approximately 6,000 SF. The project would also include connection to Energy Monitoring Control Systems, intrusion detection, fire alarm and suppression, and building information systems. Supporting facilities would include electrical service, water and gas distribution and wastewater collection lines, access roads, pavements and walkways, curbs and gutters, storm water management systems, and site preparation. Antiterrorism/force protection (AT/FP) measures would be provided, including laminated glass windows in reinforced frames, reinforced exterior doors, security lighting, fencing, barriers, and visual screening. Access for individuals with disabilities would be provided. Sustainable design and development and Energy Independence and Security Act features would also be included. Heating and air-conditioning (estimated at 50 tons) would be provided by self-contained units. Parking would be provided to accommodate the estimated 70 staff personnel. The new facility would be constructed to meet current battalion needs; no increase in the number of USAPAT personnel at JBA is anticipated. Additionally, no change in USAPAT operations is anticipated; the operation and activities conducted in the new facility would be substantially the same as those now conducted out of Building 1778. The new facility would ideally be located near the flight line to support the USAPAT mission. Demolition of Building 1778 (approximately 7,000 SF) would be required.

The new facility has not yet been designed. The estimated construction start date for the project is March 2017, with construction of the facility lasting approximately 1 year (completion estimated in March 2018). The purpose of this EA is to select a location(s) suitable for the proposed facility. Final site design and facility orientation would occur closer to the construction start date.

The project has been coordinated with the installation physical security plan, and all physical security and fire access measures, including AT/FP measures, have been considered. The Deputy Assistant Secretary of the Army (Installations, Housing & Partnerships) has certified that the project has been considered for joint use potential, and the facility would be available for use by other components. Sustainable development and design and energy conservation principles, including renewable energy alternative investigations and Life Cycle cost-effective practices in accordance with 10 CFR Part 436, would be integrated into the design, development, and construction of the project. The project would be certified by USGBC under the Leadership in Energy and Environmental Design (LEED) rating system with a minimum Silver rating.

2.2 Alternative Locations Considered for the Proposed Action

As part of the NEPA process, reasonable alternatives to the proposed action must be considered. The development of reasonable alternatives involved discussions with Andrews and partner personnel to clarify the purpose and need of the proposed action, alternative courses of action, designs, and locations for achieving the purpose and need. Consistent with the intent of NEPA, this screening process focused on identifying a range of reasonable project-specific alternatives and, from that, developing courses of action that could be implemented in the foreseeable future. Criteria considered in choosing reasonable alternatives include proximity to the USAPAT hangar facility, current and proposed land use, site adequacy, and consistency with the base 2010 General Plan Update. Alternatives deemed infeasible were not analyzed further. Three alternative locations were considered feasible for the USAPAT battalion headquarters building (Figure 2-1). All three locations are in the northeast portion of JBA.

D Street and Arnold Avenue. The location at the northwest corner of the intersection of D Street and Arnold Avenue is the currently preferred site for the new Battalion headquarters facility. The 2010 General Plan Update indicates that in the future JBA has a desire for the USAPAT mission to relocate closer to the center of the west flight line. This potential relocation means that the USAPAT hangar space would be nearly across the street from the D Street and Arnold Avenue location. The D Street and Arnold Avenue site is vacant land situated between Arnold Avenue and the Service Drive to the JBA US Postal Service (USPS) facility (Figure 2-2).

Characteristics of the site are listed below.

- The site is currently vacant land covered in maintained lawn and trees. A drainage ditch crosses the site from its west side southwesterly to the west side. Arnold Avenue, part of the Executive Route, borders the site on the east and D Street borders the site on the south.
- Surrounding the site are the following buildings and functions: North is B1672, the Bowling Center; west is the USPS facility; south is B1658, Squad Operations; and east beyond Arnold Avenue is B1752, Warehouse Supply and Equipment.
- The site is approximately a 1,795-foot walk to the USAPAT hangar.
- The parking space requirement (50 parking spaces, to meet National Capital Planning Commission requirements) is not available on the site. Parking is available across Arnold Avenue east of the site.
- Approximately 60,000 SF (1.4 acres) of ground disturbance would be required.
- The inclusion of an 82-foot AT/FP standoff in site design is questionable because of the USPS Service Drive west of the site (which falls within the 82-foot setback area).

D Street and Brookley Avenue. West of the above site, the site at the northeast corner of the intersection of D Street and Brookley Avenue is currently the site of Chapel 3 (B1679), which is scheduled to be demolished (Figure 2-3). (Note: Demolition of the chapel is a separate, previously funded project and is not part of this proposed action.)

Characteristics of the site are listed below.

- The site is currently occupied by Chapel 3 (B1679), which is scheduled to be demolished. D Street borders the site on the south and Brookley Avenue borders it to the west.
- Surrounding the site are the following buildings and functions: North of and integral to the site is the existing chapel parking lot, beyond which is another large parking lot associated with B1683, Army & Air Force Exchange Service (AAFES) Home Traditions; west and southwest are B1657 and B1631, Dormitories; south is B1642, Library; east are B1677, Andrews Federal Credit Union and B1674, Base Theater.
- The site is approximately a 2,715-foot walk to the USAPAT hangar.
- The parking space requirement is available on the site. The existing parking area for the chapel would be used and offers 100 parking spaces (twice the 50 parking-space requirement of the National Capital Planning Commission).
- The site is of adequate size to accommodate an 82-foot AT/FP standoff.

Westover Drive and Arnold Avenue. North of the D Street and Arnold Avenue location is a site at the northwest corner of the intersection of Westover Drive and Arnold Avenue. The site is vacant land north of The Exchange (B1811) (Figure 2-4).



Site Map

Figure 2-1

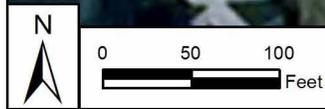


LEGEND

 Approximate Location

D Street and Arnold Drive

Figure 2-2



LEGEND

 Approximate Location

D Street and Brookley Avenue

Figure 2-3



LEGEND

 Approximate Location

Westover Drive and Arnold Drive

Figure 2-4

Characteristics of the site are listed below.

- The site is currently vacant with some maintained lawn, but it is mostly wooded. Wetlands could be on the site and no jurisdictional determination of wetlands has been performed on the site.
- Surrounding the site are the following buildings and functions: North is B1889, The Club; west is wooded land and B1870, Electrical Compound; south is B1811, The Exchange; and southeast and east are B1900, Aerial Port Squadron Terminal, B1931 Survey Equipment Shop, and B1932, Jet Engine Maintenance Facility.
- The site is approximately a 1,860-foot walk to the USAPAT hangar.
- The site would accommodate 50 parking spaces to meet National Capital Planning Commission requirements, and 170 overflow parking spaces are available at north of the site at The Club.
- Approximately 90,000 SF (2.05 acres) of ground disturbance would be required.
- Approximately 64,400 SF (1.5 acres) of woodland (about 375–450 trees) would be removed to accommodate the facility.

2.3 No Action Alternative

Under the No Action Alternative, there would be no change from existing conditions at JBA. The USAPAT functions at JBA would continue to operate in antiquated, dispersed facilities that meet only approximately 50 percent of the mission and special needs space requirements. The conditions and separation of functions would continue to hamper and degrade the battalion's ability to properly train and conduct mission responses. However, inclusion of the No Action Alternative is prescribed by CEQ regulations and, therefore, is carried forward for further analysis in the EA.

2.4 Comparison Matrix of Environmental Effects of All Alternatives

Table 2-1 summarizes the impacts of the No Action and proposed alternatives, which are described in more detail in Section 4 of this EA.

2.5 Decision to be Made and Identification of Preferred Alternative

Upon completion of the EA, JBA would determine whether implementation of the proposed action would result in any significant impacts. If significant impacts would result, JBA would implement mitigation measures to reduce impacts below the level of significance, initiate preparation of an environmental impact statement, or abandon the proposed action. This EA will also be used to guide JBA in implementing the proposed action in a manner consistent with the USAF standards for environmental stewardship.

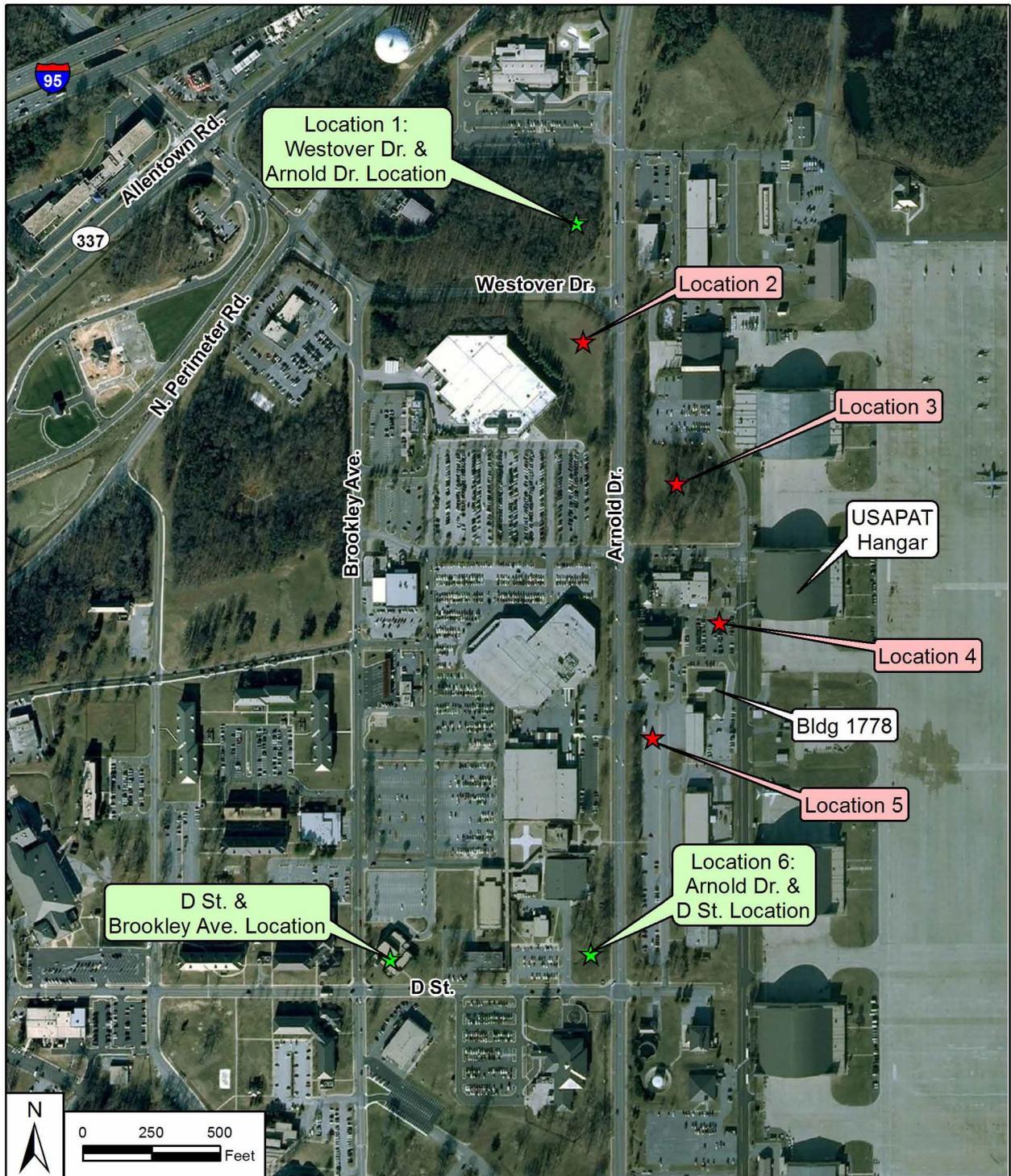
2.6 Alternatives Considered but Not Carried Forward

Alternative locations for meeting this requirement were explored during project development. The three proposed locations were determined to be the only feasible ones to meet both USAPAT mission requirements and JBA planning constraints. In total, seven locations were proposed for the new USAPAT facility (Figure 2-5). Three of the proposed locations (location 3, location 4, and location 5) are along the flight line, and although proximity to the flight line is preferred by USAPAT, the 2010 General Plan Update for JBA emphasizes placing activities that are not essential to flight line operations off the flight line. Extensive renovations and upgrades are planned for the west flight line, and locating the new USAPAT facility at locations 3, 4, or 5 would have created conflicts with these planned renovations. Finally, some sites proposed by USAPAT would not have been able to meet AT/FP setback requirements. For these reasons,

locations 3, 4, and 5 were eliminated from further consideration. Location 2, at the southwest corner of Arnold Avenue and Westover Drive, was eliminated from consideration because the property is needed for the expansion of the Main Exchange.

Table 2-1 Comparison of Impacts of Alternatives				
Resource	D Street & Arnold Ave	D St & Brookley Ave	Westover Dr & Arnold Ave	No Action
Noise	Short-term minor adverse effects from the use of construction equipment. No long-term increases in the overall noise environment.			No effect.
Air quality	Short- and long-term minor adverse effects through airborne dust and other pollutants generated during construction and demolition and by introducing new stationary sources of pollutants, such as heating boilers. GHG emissions associated with the proposed action would be well below the CEQ threshold.			No effect.
Safety and occupational health	No effect.			No effect.
Earth resources	Short-term minor adverse effects on soils from construction equipment use and facility construction. No long-term effects on soils. No effects on geology or topography.			No effect.
Water resources	No effect.			No effect.
Infrastructure and utilities	Long-term minor adverse effects on landfill capacity from construction debris. The existing capacity for all utilities would be adequate for the proposed facility.			No effect.
Transportation	Short-term minor adverse effects from vehicles and day-labor traffic during construction.			No effect.
Hazardous and toxic substances	No effect.			No effect.

Table 2-1 Comparison of Impacts of Alternatives				
Resource	D Street & Arnold Ave	D St & Brookley Ave	Westover Dr & Arnold Ave	No Action
Biological resources	No effect.		Long-term minor adverse effects at the Westover site from the loss of 2 acres of wooded habitat. Wetland impacts at the Westover site would be determined upon a decision to use the site.	No effect.
Cultural resources	No effect.			No effect.
Socioeconomics	Short-term minor beneficial economic effects on the regional economy. No effects on law enforcement, fire protection, emergency medical services, or environmental justice. Potential short-term minor adverse effects on the protection of children from construction activity.			No effect.
Land use	No effect.			Minor adverse effect from maintaining a non-flight-essential mission along the west flight line.
Sustainability	Long-term beneficial effect from the replacement of an outdated facility with a modern, efficient one.			No effect.



LEGEND

- ★ Proposed Sites
- ★ Sites Eliminated from Consideration

All Proposed Locations

Figure 2-5

3 Existing Conditions

3.1 Noise

Sound is a physical phenomenon consisting of vibrations that travel through a medium, such as air, and are sensed by the human ear. Noise is defined as any sound that is undesirable because it interferes with communication, is intense enough to damage hearing, or is otherwise intrusive. Human response to noise varies depending on the type and characteristics of the noise distance between the noise source and the receptor, receptor sensitivity, and time of day. Noise is often generated by activities essential to a community's quality of life, such as construction or vehicular traffic.

Sound varies by both intensity and frequency. Sound pressure level, described in decibels (dB), is used to quantify sound intensity. The dB is a logarithmic unit that expresses the ratio of a sound pressure level to a standard reference level. Hertz (Hz) are used to quantify sound frequency. The human ear responds differently to different frequencies. *A-weighting*, measured in A-weighted decibels (dBA), approximates a frequency response expressing the perception of sound by humans. Sounds encountered in daily life and their dBA levels are provided in Table 3-1.

**Table 3-1
Common sounds and their levels**

Outdoor	Sound level (dBA)	Indoor
Motorcycle	100	Subway train
Tractor	90	Garbage disposal
Noisy restaurant	85	Blender
Downtown (large city)	80	Ringling telephone
Freeway traffic	70	TV audio
Normal conversation	60	Sewing machine
Rainfall	50	Refrigerator
Quiet residential area	40	Library

Source: Harris 1998

The dBA noise metric describes steady noise levels, although very few noises are, in fact, constant. Therefore, A-weighted Day-night Sound Level (DNL) has been developed. DNL is defined as the average sound energy in a 24-hour period with a 10-dB penalty added to the nighttime levels (10 p.m. to 7 a.m.). DNL is a useful descriptor for noise because (1) it averages ongoing yet intermittent noise, and (2) it measures total sound energy over a 24-hour period. In addition, Equivalent Sound Level (L_{eq}) is often used to describe the overall noise environment. L_{eq} is the average sound level in dB.

The Noise Control Act of 1972 (PL 92-574) directs federal agencies to comply with applicable federal, state, and local noise control regulations. In 1974 the U.S. Environmental Protection Agency (EPA) provided information suggesting that continuous and long-term noise levels in excess of DNL 65 dBA are normally unacceptable for noise-sensitive land uses such as residences, schools, churches, and hospitals.

Maryland's Environmental Noise Act of 1974 limits noise to a level that will protect the health, general welfare, and property of the people of the state. Maryland limits both the overall noise environment and the maximum allowable noise level for residential, industrial, and commercial areas (Code of Maryland Regulations [COMAR] 26.02.03) (Tables 3-2 and 3-3). During the daytime, construction and demolition activities are exempt from the limits outlined in Tables 3-2

and 3-3. For construction and demolition activities a person may not cause or permit noise levels that exceed 90 dBA in daytime (7 a.m. to 10 p.m.) or levels specified in Table 3-3 during nighttime (COMAR 26.02.03).

Table 3-2
Maryland overall environmental noise standards

Zoning district	Level (dBA)	Measure
Industrial	70	$L_{eq}(24)$
Commercial	64	DNL
Residential	55	DNL

Source: COMAR 26.02.03

Table 3-3
Maximum allowable noise level (dBA) for receiving land use categories

Day/Night	Industrial	Commercial	Residential
Day	75	67	65
Night	75	62	55

Source: COMAR 26.02.03

Note: Daytime construction noise limits are 90 dBA for all land use categories.

The military noise environment consists primarily of three types of noise zones: low, moderate and high. Air Force Manual 32-1123(I) defines recommended noise limits from Air Force activities for established uses of land with respect to environmental noise (US Air Force 2005). Three noise zones are defined in the regulation:

- Noise Zone I: Relatively low noise environment. Acceptable for housing, schools, medical facilities, and other noise-sensitive land uses.
- Noise Zone II: Moderately loud noise environment. Normally not recommended for housing, schools, medical facilities, and other noise-sensitive land uses.
- Noise Zone III: Highly loud noise environment. Not recommended for housing, schools, medical facilities, and other noise-sensitive land uses.

Table 3-4 outlines noise limits and zones for land use planning for aircraft operations. These noise levels are consistent with EPA guidance.

Table 3-4
Noise limits and zones for land use planning for aircraft operations

Noise zone	General level of noise	Aircraft DNL (dBA)	Recommended uses
I	Low	< 65	Noise-sensitive land uses acceptable
II	Moderate	65–75	Noise-sensitive land uses normally not recommended
III	High	> 75	Noise-sensitive land uses not recommended

Source: U.S. Air Force 2005

Both on- and off-base individuals could be subjected to multiple sources of noise during the day including military aircraft operations, traffic, normal operation of Heating Ventilation and Air Conditioning (HVAC) systems, military training activities, lawn maintenance, and construction activities. JBA Airfield is approximately 600 feet east of the proposed sites. Table 3-5 outlines the estimated DNL and the noise zone for the closest noise sensitive areas to the proposed activities. All three sites are in noise zone I, and no noise sensitive areas are within 2,000 feet of the proposed locations.

Table 3-5
Estimated existing noise levels at proposed sites

Location	Closest noise sensitive area			Estimated DNL (dBA)	Noise zone
	Distance	Direction	Type		
D Street and Arnold Avenue	2,846 ft (868 m)	Southwest	Residences	< 65	I
D Street and Brookley Avenue	2,584 ft (788 m)	South	Residences		
Westover Drive and Arnold Avenue	3,000 ft (914 m)	North	Residences		
Building 1778	4,500 ft (1,370 m)	North	Residences		

Source: JBA 2011

3.2 Air Quality

3.3.1 Affected Environment

EPA Region 3 and Maryland Department of the Environment (MDE) regulate air quality in Maryland. The Clean Air Act (42 U.S.C. 7401-7671q), as amended, gives EPA responsibility to establish the primary and secondary National Ambient Air Quality Standards (NAAQS) (40 CFR Part 50) that set acceptable concentration levels for six criteria pollutants: particulate matter (measured as both particulate matter [PM₁₀] and, fine particulate matter [PM_{2.5}]), sulfur dioxide (SO₂), carbon monoxide (CO), nitrogen oxides (NO_x), ozone (O₃), and lead. Short-term NAAQS (1-, 8-, and 24-hour periods) have been established for pollutants contributing to acute health effects, while long-term NAAQS (annual averages) have been established for pollutants contributing to chronic health effects. While each state has the authority to adopt standards stricter than those established under the federal program, Maryland accepts the federal standards.

Federal regulations designate Air Quality Control Regions (AQCRs) in violation of the NAAQS as *nonattainment* areas. Federal regulations designate AQCRs with levels below the NAAQS as *attainment* areas. According to the severity of the pollution problem, ozone nonattainment areas can be categorized as marginal, moderate, serious, severe, or extreme. Prince George's County (and therefore JBA) is within the National Capital Interstate AQCR (AQCR 47) (40 CFR 81.12). AQCR 47 is in the ozone transport region that includes 12 states and Washington, DC. EPA has designated Prince George's County as the following (USEPA 2012a):

- Moderate nonattainment for the 1997 8-hour O₃ NAAQS (Note: EPA has not yet made area designations for the 2008 8-hour O₃ NAAQS)
- Nonattainment for the 1997 PM_{2.5} NAAQS
- Attainment for all other criteria pollutants

Existing ambient air quality conditions near JBA can be estimated from measurements conducted at air quality monitoring stations in Prince George's County about 5 miles from the base. The most recent available data are used to describe the existing ambient air quality conditions at this station (Table 3-6).

Table 3-6
Local ambient air quality and monitored data near JBA

Pollutant	Air quality standards ^a	Monitored data near JBA ^b
CO		
1-Hour Maximum ^c (ppm)	35	1.3
8-Hour Maximum ^c (ppm)	9	0.8
NO₂		
1-Hour (ppm)	100	(no data)
O₃		
8-Hour Maximum ^d (ppm)	0.075	0.086
SO₂		
1-Hour Maximum ^d (ppm)	75	12
24-Hour Maximum ^d (ppm)	140	4
PM_{2.5}		
24-Hour Maximum ^e (µg/m ³)	35	27
Annual Arithmetic Mean ^f (µg/m ³)	15	11.8
PM₁₀		
24-Hour Maximum ^c (µg/m ³)	150	25

Notes: µg/m³ = micrograms per cubic meter; NO₂ = Nitrogen dioxide; ppm = parts per million.

a - Source: 40 CFR 50.1-50.12.

b - Source: EPA, 2012d.

c - Not to be exceeded more than once per year

d- The 3-year average of the fourth highest daily maximum 8-hour average O₃ concentrations over each year must not exceed 0.08 ppm.

e - The 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor must not exceed 35 µg/m³.

f - The 3-year average of the weighted annual mean PM_{2.5} concentrations from must not exceed 15.0 µg/m³.

JBA maintains a Synthetic Minor Permit to Operate (SPTO No. 033-00655A) (MDE 2012). The permit requirements include annual periodic inventory for all significant stationary sources of air emissions and covers monitoring, record keeping, and reporting. JBA's 2010 installation-wide air emissions for all significant stationary sources are tabulated in Table 3-7.

Table 3-7
Annual emissions for significant stationary sources at JBA

Pollutant	Emissions (tons/year)
Volatile organic compounds (VOCs)	2.6
Nitrogen oxides (NOX)	9.8
Carbon monoxide (CO)	5.5
Sulfur dioxide (SO ₂)	0.3
Fine particulate matter (PM ₁₀)	0.5

Source: URS 2012

Greenhouse Gases and Climate Change. Greenhouse gases (GHGs) are components of the atmosphere that trap heat relatively near the surface of the earth and, therefore, contribute to the greenhouse (or heat-trapping) effect and climate change. Most GHGs occur naturally in the atmosphere, but increases in their concentration result from human activities such as burning fossil fuels. Global temperatures are expected to continue to rise as human activities continue to add carbon dioxide (CO₂), methane, nitrogen oxide, and other GHGs to the atmosphere. Whether rainfall will increase or decrease remains difficult to project for specific regions (USEPA 2012c; IPCC 2007).

EO 13514, *Federal Leadership in Environmental, Energy, and Economic Performance* outlines policies intended to ensure that federal agencies evaluate climate-change risks and vulnerabilities, and to manage the short- and long-term effects of climate change on their operations and mission. The EO specifically requires federal agencies (including the Air Force and the Army) to measure, report, and reduce their GHG emissions from both their direct and indirect activities. The Department of Defense (DoD) has committed to reduce GHG emissions from non-combat activities 34 percent by 2020 (DoD 2010). In addition, the CEQ recently released draft guidance on when and how federal agencies should consider GHG emissions and climate change in NEPA analyses. The draft guidance includes a presumptive effects threshold of 27,563 tons per year (25,000 metric tons per year) of CO₂ equivalent emissions from a federal action (CEQ 2010).

3.3 Safety and Occupational Health

Potential safety issues at Andrews include ground and AT/FP, explosive, flight, and construction jobsite safety associated with activities conducted by Andrews. The Andrews General Plan specifically describes safety and security requirements that have been implemented for various areas of the installation. General security and safety requirements will be incorporated into all future projects.

Day-to-day operation and maintenance (O&M) activities conducted at Andrews are performed in accordance with applicable Air Force safety regulations, published Air Force Technical Orders, and standards prescribed by Air Force Occupational Safety and Health requirements. Additionally, the DoD and the Air Force have developed force protection guidelines for military installations as a result of terrorist activities. The *DoD Minimum Antiterrorism Standards for Buildings* (UFC 4-010-01) addresses access to facilities on the installation, facility siting, exterior design, interior infrastructure design, and landscaping. The *USAF Installation Force Protection Guide* provides general guidance on force protection issues.

Construction jobsite safety and the prevention of accidents is an ongoing activity for any Air Force jobsite. All contractors performing construction activities are responsible for complying with Air Force safety and Occupational Safety and Health Administration (OSHA) regulations and are required to conduct construction activities in a manner that does not pose any undue risk to workers or personnel. Industrial hygiene programs address exposure to hazardous materials (HAZMAT), use of personal protective equipment (PPE), and use and availability of Material Safety Data Sheets. Industrial hygiene is the responsibility of contractors, as applicable. Contractor responsibilities are to review potentially hazardous workplaces; to monitor exposure to workplace chemical (e.g., asbestos, lead, HAZMAT), physical (e.g., noise propagation), and biological (e.g., infectious waste) agents; to recommend and evaluate controls (e.g., ventilation, respirators); to ensure personnel are properly protected or unexposed; and to ensure a medical surveillance program is in place to perform occupational health physicals for those workers subject to any accidental chemical exposures or engaged in hazardous waste work.

3.4 Earth Resources

Geology. The Coastal Plain of southern Maryland, on which JBA is located, is composed of unconsolidated sedimentary geologic units that range from the Quaternary (1.5 million years ago) to Cretaceous (144 to 65 million years ago) Periods in age. These geologic units are made of unconsolidated sand, gravel, silt, clay, and organic materials that overlay bedrock. The surficial geologic deposits range in thickness from 10 to 20 feet and include irregularly bedded cobbles, gravel, and fine sand that are mixed with silt and clay. Surface formations at JBA have largely been previously disturbed by grading activities in support of facility construction (Department of the Air Force 2012).

Topography. JBA is on the western side of the middle Atlantic Coastal Plain Physiographic Province, which is characterized by generally level to gently sloping terrain with local relief of less than 100 feet, except in association with steep stream banks. JBA sits on a plateau between the Anacostia River and the Patuxent River. Surface elevations at JBA range from about 215 feet above mean sea level (msl) to 281 feet above msl (Department of the Air Force 2012). The proposed sites for the USAPAT facility are all about 260–265 feet above msl (USGS 2011).

Soils. Because of the considerable amount of development over the years at Andrews, approximately 50 percent of the soils on the base are categorized as Udorthents, which is land that is altered by disturbance to the extent that the original soil series cannot be identified. The soils of the Brookley Avenue and D Street site are classified as Udorthents, as are the soils bordering roads on the Arnold Avenue and Westover Drive site. Soils of the wooded portion of the Westover site are Hoghole-Grosstown soils with 0–5 percent slopes (USDA NRCS 2012). Soils of the Arnold Avenue and D Street site are Grosstown-Urban land soils with 0–5 percent slopes. These three soils are rated as being not limited for the small building development, and they are not particularly erodible and are not susceptible to flooding or ponding.

3.5 Water Resources

Surface Water. The main base portion of Andrews is within portions of the Potomac River and the Patuxent River watersheds. Most of the base, including the three proposed sites, is in the Potomac River watershed. The Westover Drive site drains north to Henson Creek. The two sites on D Street drain south to Meetinghouse Branch, a tributary of Tinkers Creek. Both Henson Creek and Tinkers Creek are tributaries of the Potomac River.

EPA published regulations addressing stormwater discharges under the National Pollutant Discharge Elimination System (NPDES) permitting program. EPA delegated to MDE the authority to administer the NPDES program in Maryland. JBA maintains coverage under MDE's General Discharge Permit (GDP) for industrial activities (GDP No. 02-SW) and under MDE's GDP for discharges by Municipal Separate Stormwater Sewer System operators (No. 05-SF-5501). JBA is also required to comply with the requirements of EPA's Chesapeake Bay Total Maximum Daily Load and EO 13508 pertaining to the Chesapeake Bay Protection and Restoration.

Groundwater. Regional water-supply aquifers are several hundred feet below ground surface. Groundwater underlying the main base occurs at or near the ground surface, with shallow groundwater occurring at depths of less than 20 feet below ground surface, likely under unconfined conditions. Groundwater recharge occurs primarily through precipitation.

Floodplains. In 2005 JBA completed a study of the 100-year floodplains on the base. Those floodplains are generally limited to small streams and the area immediately adjacent to the streams (Department of the Air Force 2012). No floodplain areas are on any of the three proposed sites for the USAPAT facility.

Wetlands. EO 11990 (*Protection of Wetlands*) directs federal agencies to minimize the destruction, loss, and degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetland communities. In accordance with the Clean Water Act (33 U.S.C. 1251 *et seq.*), projects at JBA that involve dredging or filling wetlands would require section 404 permits from the U.S. Army Corps of Engineers and a Nontidal Wetland Permit from MDE.

Wetlands identified on Andrews include palustrine, forested wetlands and palustrine emergent wetlands, both of which are both primarily along streams and drainageways. Some palustrine, scrub/shrub wetlands and palustrine, unconsolidated, bottom wetlands have also been identified on the base (89 AW 2004). No wetlands are on the two proposed sites on D Street (Figure 3-1). The Westover Drive site, however, is wooded and could have wetlands.

3.6 Infrastructure and Utilities

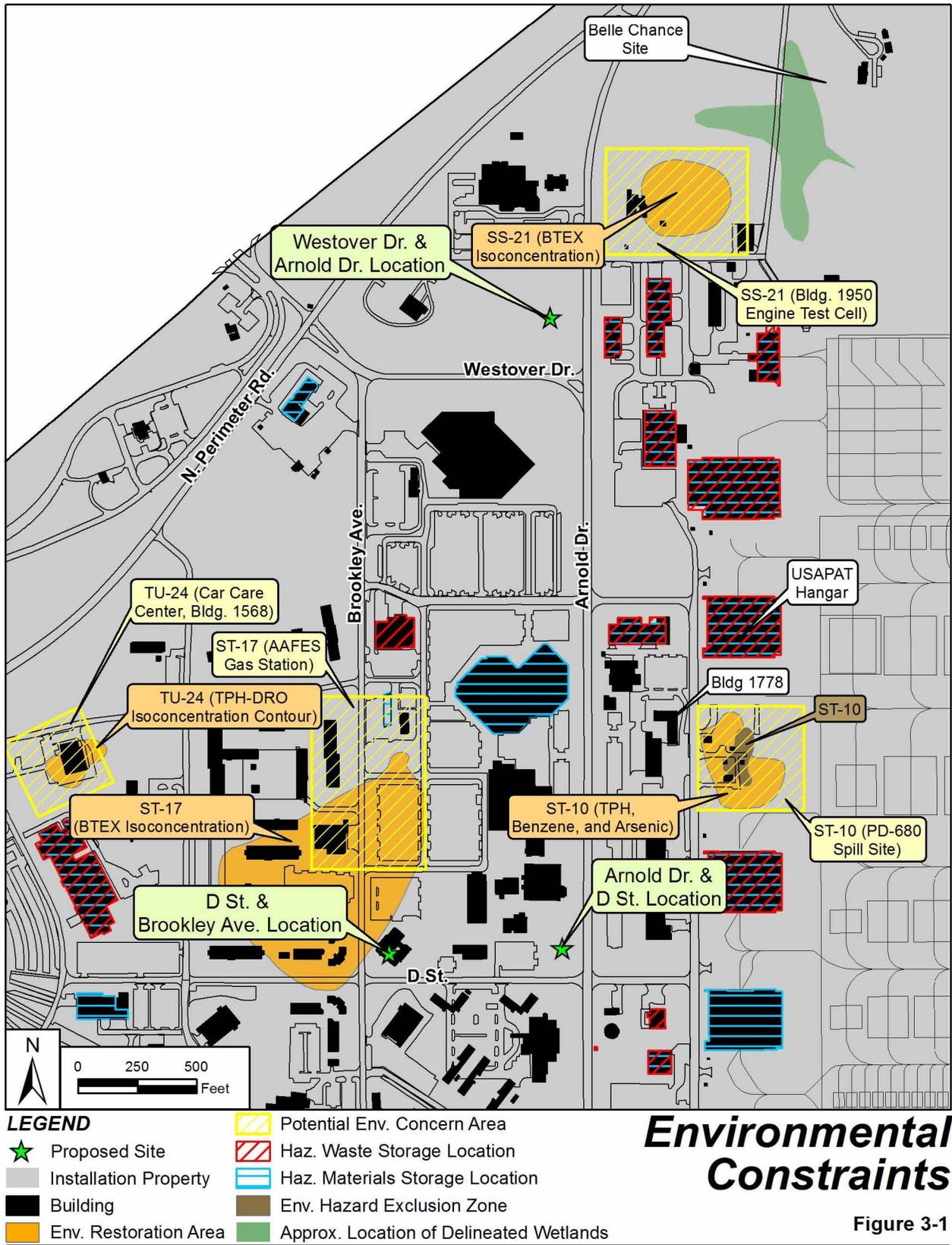
All utility services—water, wastewater, gas, electricity, and communications—are available near the proposed parcels. The utility components discussed in this section are water supply, sanitary sewer and wastewater system, storm water drainage, electricity, natural gas, solid waste management, and communications.

Potable water. The Washington Suburban Sanitary Commission (WSSC) supplies treated water through three connections to JBA through Terrapin Utility Services, Inc. The distribution system has more than 100 miles of water line, which are approximately 60 years old. Brown water from rust on the interior wall of iron pipes has been detected throughout the base. One elevated water storage tank is on the base, but it is not being used with the base water supply system (URS 2012).

Wastewater system. The sanitary sewer system consists of sewer lines, lift stations, and sewer metering vaults that transmit off-base wastewater to wastewater treatment plants that the WSSC owns and operates. The sanitary sewer system on base is approximately 60 years old. Terrapin Utility Services, Inc. owns and operates it. Terrapin Utility has begun to rehabilitate or replace the entire wastewater collection system. Approximately 15,600 feet of sewer pipe and 64 manholes have been rehabilitated using cure-in-place pipe lining, and approximately 10,000 feet of sewage force main has been replaced (URS 2012).

Storm water system. Storm water at the base is conveyed through swales and ditches in non-airfield areas. All surface runoff ultimately conveys through a network of primarily underground culverts and is discharged from eight major storm drain outfalls. Storm water from the Westover Drive site eventually discharges into Henson Creek, and that from the sites on D Street eventually discharges to Tinkers Creek, both of which then flow to the Potomac River. The storm water drainage system's capacity is adequate for collecting and disposing of storm water to the existing infrastructure and natural drainages, although the flat terrain and shallow storm sewer lines cause isolated ponding during low-intensity rainfalls (URS 2012).

The base operates under two general NPDES permits: (1) Multi-Sector General Permit for Storm Water Associated with Industrial Activities; and (2) NPDES General Permit for Storm Water Discharges from State and Federal Small Municipal Separate Storm Sewer Systems. These two permits do not cover storm water runoff during construction activities. JBA has prepared and implemented a Storm Water Pollution Prevention Plan that includes water quality monitoring requirements and best management practices to minimize the potential for contaminants to reach nearby surface waters to comply with the requirements of these permits (URS 2012).



Source: JBA GIS 2012.

Solid waste. Solid waste management at JBA includes the collection and disposal of nonhazardous solid wastes; recycling; and disposal of infectious and pathological wastes. No active landfills are on base, and the majority of solid waste from JBA is transported to off-base landfills. The Resources, Recovery, and Recycling Program office, in Building 3347, is responsible for the collection, segregation, accumulation, and disposition of domestic waste recyclables from numerous industrial and domestic collection sites. Recyclables include cardboard, paper, metals, plastics, glass, furniture, and white goods (JBA 2011).

Electricity. The Potomac Electric Power Company provides electrical power to JBA. Two off-base electrical feeders tie directly into the main substation on-base. From this substation, which the Air Force owns and operates, 20 primary feeder circuits distribute electricity to the rest of the base. The distribution system is a combination of both overhead and underground power lines, although 90 percent of the overhead power lines have been placed underground. The base owns, operates, and maintains the electric power distribution system on base except for that in the housing area, which is privatized.

Natural gas. The Washington Gas and Light Company supplies natural gas to JBA through seven connection points. The natural gas distribution system is approximately 21 years old and 10 miles long. Pipe is made of polyethylene. The natural gas distribution system was rated as adequate. Washington Gas and Light is responsible for installing and maintaining the natural gas distribution system at JBA (URS 2012).

Heating and cooling. JBA's heating and cooling system has been decentralized and no longer includes central heating plants. The boiler inventory now includes more than 300 oil-fired and natural gas boilers. Approximately 95 percent of the boilers run on natural gas, and the remaining 5 percent run on oil. Building 1778 heating and air conditioning operate from three separate units that are antiquated and prone to breaking down at seasonal changes.

Communications. The communications system at JBA is considered adequate for meeting the communication system needs of existing facilities at the installation. The command, control, communication, and computer system on base is a combination of several networks operating on an overlapping basewide infrastructure. With the exception of the 89th Communications Squadron, the 844th Communication Group is responsible for the communications systems on JBA. The system's primary communication hub is in Building 1558. Approximately 200 buildings on base are connected to the system (JBA 2011). Building 1778 has analog phone systems.

3.7 Transportation

Transportation in and around JBA is achieved mainly via road and street networks, pedestrian walks, trails and bike paths. The transportation system serves installation traffic consisting of everyday work, living, and recreations trips.

On-base roadways and gate traffic. JBA has approximately 101 miles of paved roads, which provide access to administrative, operations, housing, industrial, medical, recreation, and airfield areas. The overall pavement condition for roads and parking lots on JBA is adequate, and the majority of the paved surfaces are in good condition. Perimeter Road is the only primary roadway connecting the two sides of JBA. The two-lane undivided road makes an 8.4-mile loop around the JBA perimeter. Traffic during peak flow hours is heaviest at the Alabama Avenue/North Perimeter Road and Virginia Avenue/South Perimeter Road intersections because of the limited number of egress points on base property. Despite heavy traffic flow at the gates and signalized intersections, JBA has a very low accident rate because of adequate sight distance and road signage (URS 2012). All three parcels are within walking distance of the USAPAT hangar.

Four gates provide access to and from JBA property: Main, Pearl Harbor, Virginia, and North. Another gate, the Maryland Gate, is used for distinguished visitor access. The primary access to JBA is provided through the Main Gate and Virginia Gate. The Pearl Harbor Gate provides access for commercial deliveries and personal vehicles. The North Gate provides access to the base with restricted hours. The West Gate on Allentown Road is open for pedestrian use only.

The following intersections operate above their capacity during one of the peak periods:

- Allentown Road and Interstate (I)-95 Northbound Off-ramp (Main Gate) during a.m. peak
- Pearl Harbor Drive and Dower House Road (Pearl Harbor Gate) during p.m. peak
- Old Alexandria Ferry Road and Coventry Way (near Virginia Gate) during p.m. peak (JBA 2011).

Off-base roadways. The Capital Beltway (I-95/I-495) is adjacent to JBA, along the northwest side of the base and serves as the major artery to and from JBA to Washington, D.C., to the northwest and Baltimore; Philadelphia, Pennsylvania; and Wilmington, Delaware, to the northeast. I-95 parallels MD-337 (Allentown Road/Suitland Parkway) on the northwest portion of the base. Average daily traffic counts for off-base gate accessible roadways are listed in Table 3-8.

Table 3-8
Average daily traffic counts for gate accessible off-base roadways

Roadway	Count
I-95/I-495 at Allentown Road (Main Gate)	24,310
Branch Avenue at Old Alexandria Ferry Road (Virginia Gate)	118,851
Suitland Parkway at Allentown Road (North Gate)	4,033
Pennsylvania Avenue at Dower House Road (Pearl Harbor Gate)	74,951

Source: MDSHA 2011

In general, major intersections in the roadway network surrounding JBA are operating over capacity, accommodating more traffic than they were designed to handle. This situation creates queuing, delays, and potentially unsafe conditions.

Air. Three major airports serve the region. Ronald Reagan Washington National Airport (DCA) is closest to JBA, approximately 15 miles to the northwest on the Virginia side of the Potomac River. Baltimore-Washington International Thurgood Marshall Airport (BWI) is approximately 35 miles north of the base, just south of Baltimore; it offers regional, domestic, and international air service. Washington Dulles International Airport (IAD) is approximately 40 miles west of the base in Dulles, Virginia. Dulles serves as the main international gateway for the region, and it is a major hub for both domestic and international air travel (JBA 2011).

Rail. No direct freight or passenger rail link to JBA exists. The greater Washington, D.C., area is part of Amtrak's Northeast Corridor, which provides direct regional high-speed rail service from Virginia to Massachusetts with multiple departures daily (JBA 2011).

Public transportation. Three public agencies provide transit service to the area surrounding JBA: Washington Metropolitan Area Transit Authority, the Maryland Transit Administration, and *TheBus* of Prince George's County. Commuters must walk to and from any public transit stops and through the entry control facilities to their base destination or JBA shuttle stop. Two bus routes have at least two stops within a quarter-mile of the intersection of Suitland Road and Allentown Road outside the Main Gate (JBA 2011).

3.8 Hazardous Materials and Wastes

The term *hazardous materials* and *hazardous waste* refer to substances defined as hazardous by the Comprehensive Environmental Response, Compensation and Liability Act and wastes defined as hazardous by the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA). Hazardous materials are substances that, because of their quality, concentration, or physical, chemical, or infectious characteristics, could present substantial danger to public health or the environment when released into the environment. Under 40 CFR Part 261, hazardous wastes that are regulated under RCRA are defined as solid, liquid, contained gaseous, or semisolid waste, or any combination of wastes that either are listed or exhibit one or more of the hazardous characteristics. Petroleum products include petroleum-based fuels, oils, and their wastes and are not covered under CERCLA but may be covered under RCRA.

Issues associated with hazardous materials and wastes typically center on waste streams; underground storage tanks (USTs); aboveground storage tanks; and the storage, transport, use, and disposal of pesticides, fuels, lubricants, and other industrial substances.

Hazardous and petroleum wastes. Operations conducted at JBA require the use and storage of hazardous materials, primarily associated with aircraft operations. The 11th Wing and its tenants produce more than 2,205 pounds of hazardous waste per month. Primary types of hazardous wastes generated include batteries, used fuel and oil, solvents, fluorescent bulbs, rags, fuel filters, and solvent-contaminated solids. The majority of hazardous waste is generated as a result aircraft operations (Department of the Air Force 2012). JBA is regulated as a large-quantity generator of hazardous wastes under EPA identification number MD0570024000.

Hazardous materials sites of concern with respect to the proposed action are one spill site near Building 1778 and one spill site near the Brookley Avenue and D Street location (Figure 3-1). The spill site near Building 1778, ST-10 (or the PD-680 Spill Site), is associated with two USTs that leaked PD-680 solvent (JBA undated a). The USTs were removed, a Remedial Investigation (RI)/Feasibility Study (FS) for the site has been completed, and a Record of Decision has been signed, which identifies groundwater monitoring and institutional controls as the remedy. Current and future land use is at ST-10 is airfield operations and maintenance because the site is within the airfield fence. Site closure is expected in 2016.

The second site, ST-17 (AAFES Service Station) is north and west of the Brookley Avenue and D Street location (JBA undated b). Five USTs at the site were removed in 1993 and were found to have been leaking. Contaminants of concern at the site included free-phase petroleum fuel, and the dissolved petroleum constituents in the groundwater, such as Benzene, Toluene, Ethylbenzene, Xylene (BTEX), and Methyl-Tert-Butyl-Ethene (MTBE), which are above regulatory standards. A migrating groundwater plume of BTEX and MTBE at the site was cleaned up, and the site was closed in June 2005.

No hazardous material use is associated with the USAPAT facility at Building 1778.

3.9 Biological Resources

Nearly 80 percent of the main base at Andrews is developed or intensely managed. Vegetation occurs largely in association with improved areas, including lawns, gardens, golf course fairways, bare ground, and recreational fields. The remaining patches of original vegetation on unimproved areas consist of or are associated with mixed hardwood forest, mixed hardwood/pine forest, oak forest, oak/hickory forest, oak/pine forest, pine forest, red maple swamp, and shallow emergent marsh. The plants and animals found on Andrews are typical of those found in the Atlantic Coastal Plain area. Because of the developed nature of Andrews, generalist animal species are most commonly found on the base.

Federally listed species. Rare, threatened, and endangered (RTE) species surveys were conducted at Andrews in 1994, 1998, 2004, and 2006. The federally endangered sandplain gerardia (*Agalinis acuta*) was identified during the 1994 RTE survey, but was not observed in subsequent surveys (USACE Baltimore District 2007).

State-listed species. Five state-listed species have been observed in the past at JBA, but none of the species were identified in the 2006 survey. Four of the species observed were found near the southeast portion of JBA near South Perimeter Road. The swollen bladderwort (*Utricularia inflata*), however, was found at the western branch of the Belle Chance Pond, northeast of the Westover Drive site.

3.10 Cultural, Historical, and Archeological Resources

Andrews has been the subject of numerous cultural resource investigations. Cultural resources at Andrews are managed according to the 2009 Integrated Cultural Resources Management Plan (ICRMP) (USACE Baltimore District 2009). The ICRMP provides guidelines and procedures to enable the installation to meet its legal responsibilities pertaining to cultural resources under sections 106 and 110 of the National Historic Preservation Act, as amended.

Archaeological resources. The existence of indigenous populations on Andrews is evidenced by four sites on the main base area. None of the four sites have been determined eligible for listing in the National Register of Historic Places (NRHP). Six historical archaeological sites have been identified on the base. Only the late eighteenth- to early nineteenth-century historic component of archaeological site 18PR447 has been determined eligible for the NRHP and is part of the NRHP-eligible Belle Chance property (see below).

Historic architectural resources. As part of the ICRMP, a historic architectural survey was conducted on all standing structures built before 1947. The investigation concluded that only one property, Belle Chance, was potentially eligible for the NRHP. The Belle Chance property includes a 1912 dwelling, two auxiliary buildings, a cemetery and one historic archaeological site (18PR447) (Figure 3-1). Belle Chance was transferred to private ownership in 2007, and is no longer the responsibility of Joint Base Andrews.

3.11 Socioeconomics, Environmental Justice, and Protection of Children

JBA is in Prince George's County, Maryland. Prince George's County is defined as the region of influence (ROI) for the socioeconomic analysis. Socioeconomic data for Maryland and the United States are presented for comparative purposes.

Employment. Table 3-9 lists the civilian labor force and unemployment information. The ROI labor force increased 4 percent between 2000 and 2010, lower than the Maryland and the U.S. labor force growth rates of 6 percent and 8 percent, respectively. The ROI 2010 annual unemployment rate was 7 percent, lower than the state unemployment rate of 8 percent and the national unemployment rate of 10 percent. As of February 2012 (the most recent unemployment data available), preliminary unemployment data show a 7 percent unemployment rate for the ROI, the same as the Maryland unemployment rate of 7 percent but lower than the national unemployment rate of 9 percent (BLS 2012).

As of 2009, the predominate ROI industries on the basis of employment were government and government enterprises; retail trade; construction; health care and social assistance; and professional, scientific, and technical services. Together, these five industry sectors accounted for about 60 percent of regional employment. Between 2001 and 2009, the largest employment increases occurred in government, accommodation and food services, health care and social assistance, and administrative and waste management services. Employment declines occurred in information; retail trade; manufacturing; wholesale trade; management of companies and

Table 3-9
Labor force and unemployment

Jurisdiction	2000 civilian labor force	2010 civilian labor force	Change in labor force, 2000–2010	2010 annual unemployment rate
ROI (Prince George's County)	430,406	449,371	4%	7%
Maryland	2,811,657	2,980,772	6%	8%
United States	142,583,000	153,889,000	8%	10%

Source: BLS 2012

enterprises; and the forestry, fishing, and related services sectors. Government and government enterprises (which includes federal civilian, military, and state and local government) was the largest regional industry in 2009 (on the basis of employment), employing about 97,000 people and accounting for 23 percent of total ROI employment (BEA 2011).

JBA is a major contributor to the regional economy. The base is home to more than 60 units, including 2 major headquarters; 6 wings; and about 17,000 Air Force, Air Force Reserve, Air National Guard, Army, Navy, and Marine Corps service members, civilians, and their families. JBA has an economic impact of more than \$1 billion on the local community each year (JBA 2010).

Income. ROI income levels are about the same as the Maryland averages but higher than the national averages (Table 3-10). The ROI per capita personal income (PCPI) was \$30,835. That PCPI was 91 percent of the Maryland PCPI of \$33,772 and 118 percent of the national PCPI of \$26,059. The ROI median household income of \$70,019 was 102 percent of the Maryland median household income of \$68,854 and 140 percent of the national median household income of \$50,046 (US Census Bureau 2012a).

Table 3-10
Income, 2010

Jurisdiction	PCPI	Median household income
ROI (Prince George's County)	\$30,835	\$70,019
Maryland	\$33,772	\$68,854
United States	\$26,059	\$50,046

Source: US Census Bureau 2012a

Population. Population trends are presented in Table 3-11. The ROI's population increased by almost 62,000 people, or 8 percent, between 2000 and 2010. During the same period, Maryland's population grew by 9 percent and the U.S. population grew by 10 percent. The population projections predict an 8 percent increase for the ROI between 2010 and 2030, and a population growth of 22 percent for Maryland and 18 percent for the United States.

Law enforcement, fire protection, and health care. The primary mission of the 11th Security Forces Group is to provide installation security and police services to JBA. The 11th Civil Engineer Squadron is responsible for JBA readiness and emergency management and fire and emergency services. The base has two fire stations. JBA Malcolm Grow Medical Center is a multifunctional medical facility with more than 1,500 staff members and 40 in-patient beds and provides general, specialty, and emergency care. TRICARE Prime enrollees have priority for all appointments at the medical center. Active duty Soldiers, retirees, and their families are eligible for TRICARE. A dental clinic is also on the base (JBA 2010).

**Table 3-11
Population**

Jurisdiction	2000 population ^a	2010 population ^a	Change in population, 2000–2010	2030 projected population ^{b,c}	Projected change in population, 2010–2030
ROI (Prince George's County)	801,515	863,420	8%	928,300	8%
Maryland	5,296,486	5,773,552	9%	7,022,251	22%
United States	281,421,906	308,745,538	10%	363,584,435	18%

^a Source for 2000 and 2010 population: US Census Bureau 2012b.

^b Source for Prince George's County 2030 projected population: MDP 2010.

^c Source for Maryland and United States 2030 projected populations: US Census Bureau 2005.

Environmental justice. EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations*, was issued by President Clinton on February 11, 1994. The EO requires that federal agencies take into consideration disproportionately high and adverse environmental effects of governmental decisions, policies, projects, and programs on minority and low-income populations.

According to the U.S. Census Bureau's 2010 census, minority populations composed 85 percent of the ROI's total population. That is higher than the Maryland minority population of 45 percent and the national minority population of 36 percent (U.S. Census Bureau 2012b). The ROI poverty level was 8 percent, lower compared to the Maryland poverty rate of 9 percent and the national poverty rate of 14 percent (U.S. Census Bureau 2012b).

Protection of children. EO 13045, *Protection of Children from Environmental Health and Safety Risks*, issued by President Clinton on April 21, 1997, requires federal agencies, to the extent permitted by law and mission, to identify and assess environmental health and safety risks that might disproportionately affect children. Children are present at JBA as residents and visitors (e.g., residing in on-post family housing, using recreational facilities, attending events). The base takes precautions for child safety through a number of means, including using fencing, limiting access to certain areas, and requiring adult supervision.

Each proposed site is near facilities where children might be present. The proposed D Street and Arnold Avenue site has the JBA Bowling Center to the north and a USPS facility to the west. The proposed D Street and Brookley Avenue site is bordered by commercial and recreation facilities such as the AAFES, library, credit union, and base theater. South of the Westover Drive and Arnold Avenue site is The Exchange.

3.12 Land Use and Visual Resources

The *General Plan* identifies 10 general land use classifications in the main base. Andrews is divided into western and eastern sections, separated by the airfield that runs north to south. The western section of the base contains the majority of the land area, including large outdoor recreation areas, all community facilities, the Malcolm Grow Medical Center, and administrative uses.

Land use designations of the three sites proposed for the USAPAT headquarters facility and land uses surrounding the sites (both current and future) are listed in Table 3-12 and shown in Figures 3-2 and 3-3.

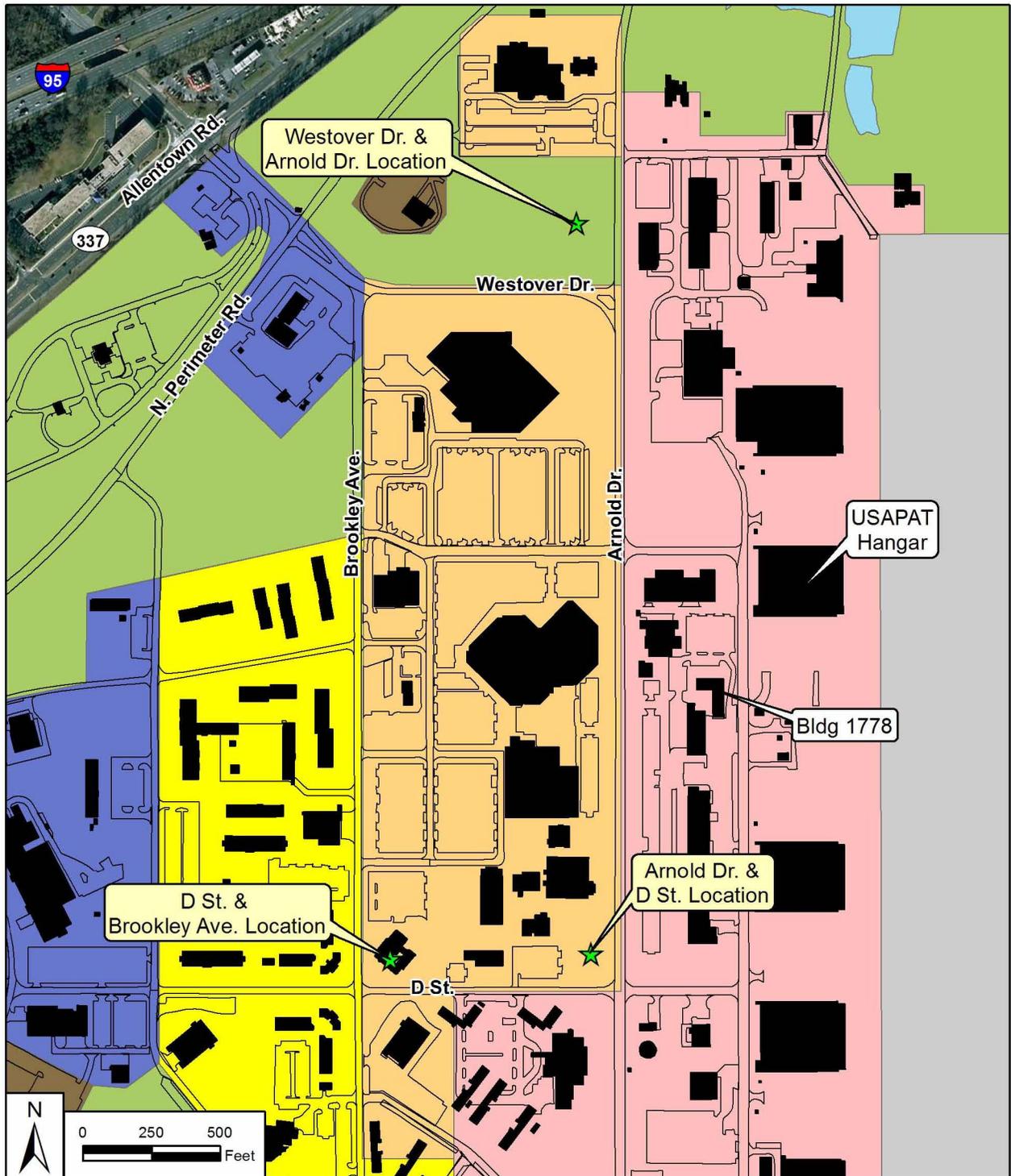
Table 3-12
Land uses associated with the proposed USAPAT sites

Site	Current land use	Future land use
Arnold Avenue and D Street	<i>Site:</i> Community <i>Surrounding:</i> Community, Aircraft O&M	<i>Site:</i> Industrial <i>Surrounding:</i> Industrial, Aircraft O&M, Administrative
D Street and Brookley Avenue	<i>Site:</i> Community <i>Surrounding:</i> Community, Housing	<i>Site:</i> Industrial <i>Surrounding:</i> Industrial, Outdoor Recreation, Administrative, Housing
Westover Drive and Arnold Avenue	<i>Site:</i> Open Space <i>Surrounding:</i> Aircraft O&M, Community	<i>Site:</i> Community <i>Surrounding:</i> Aircraft O&M, Industrial

3.13 Sustainability and Greening

In accordance with EO 13423, *Strengthening Federal Environmental, Energy, and Transportation Management*, the Air Force would incorporate sustainability and greening practices by minimizing waste during construction, recycling appropriate materials, and purchasing items produced from recycled materials. EO 13423 is a directive that requires federal agencies to implement sustainable practices for a variety of water-, energy-, and transportation-related activities. EO 13514, *Federal Leadership in Environmental, Energy and Economic Performance*, makes reducing GHG emissions a priority of the federal government. EO 13514 requires the Air Force to develop sustainability plans focused on cost-effective projects and programs to increase energy efficiency, reduce fleet petroleum consumption, conserve water, reduce waste, support sustainable communities, and leverage purchasing power to promote environmentally responsible products and technologies. Where possible, the Air Force would incorporate sustainable building and GHG-reducing concepts into the engineering design process.

The architectural compatibility guidelines at Andrews, approved in July 2009, serve as a tool to guide the planning and design of facilities to achieve a sense of design and orderly development across the entire base. In addition, the plan establishes an Architectural Review Board to implement the guidelines (AAFB 2010). Building 1778 (built in 1988) is outdated and has inefficient infrastructure. The demolition of outdated and obsolete facilities is an important aspect of the base strategic plan to achieve excellence in its facilities and improve the quality of life for assigned personnel.



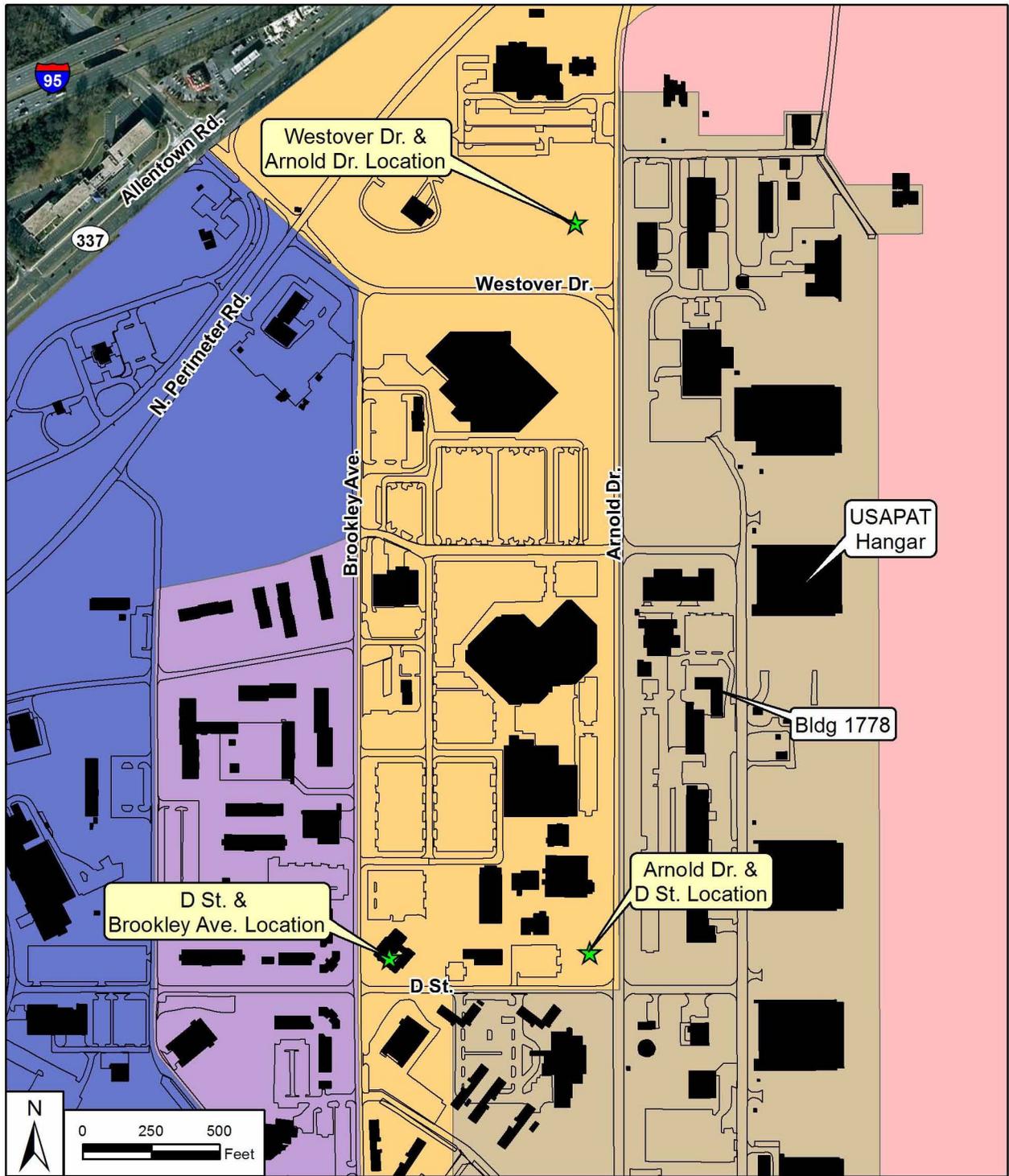
LEGEND

 Administration	 Community/Facility	 Water
 Airfield	 Unaccompanied Housing	 Maintenance
 Air Operations & Maintenance	 Open Buffer Zone	

**Current
Land Use**

Figure 3-2

Source: JBA GIS 2012.



LEGEND

 Administration	 Community Services
 Enlisted Barracks	 Operations
 Air Operations & Maintenance	

Future Land Use

Figure 3-3

Source: JBA GIS 2012.

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4 Environmental Consequences

4.1 Noise

Proposed action. Short-term minor adverse effects would be expected. Short-term increases in noise would result from the use of construction and demolition equipment. Table 4-1 presents typical noise levels (dBA at 50 feet) that EPA has estimated for the main phases of outdoor construction. Individual pieces of construction equipment typically generate noise levels of 80 to 90 dBA at a distance of 50 feet. With multiple items of equipment operating concurrently, noise levels can be relatively high in the daytime at locations within several hundred feet of active construction sites. The zone of relatively high construction and demolition noise typically extends to distances of 400 to 800 feet from the site of major equipment operations. Locations farther than 800 feet from construction sites seldom experience noteworthy levels of construction and demolition noise.

Table 4-1
Noise levels associated with outdoor construction

Construction phase	L_{eq} (dBA)
Ground clearing	84
Excavation, grading	89
Foundations	78
Structural	85
Finishing	89

Source: USEPA 1971

Because of the temporary nature of the proposed construction activities and noise sensitive areas are sufficiently distant from any of the three proposed sites, this effect would be minor. Limited truck and worker vehicle traffic could be audible at some nearby locations. These effects would be negligible.

No long-term increases in the overall noise environment (e.g., L_{eq} , A-weighted DNL) would be expected from implementing the proposed action. No military training activities, use of weaponry, demolitions, or aircraft operations would occur. Therefore, no changes in the existing noise environment associated with these sources would be expected. The proposed facility would be within noise zone I, which is fully compatible with its end use. These effects would be negligible.

No Action Alternative. No effects on the noise environment would result from implementing the No Action Alternative. No construction would occur, and no change in headquarters operations would take place.

4.2 Air Quality

Proposed action. Short- and long-term minor adverse effects would be expected. The proposed action could affect air quality through airborne dust and other pollutants generated during construction and demolition and by introducing new stationary sources of pollutants, such as heating boilers. Air quality impacts would be considered minor unless the emissions would be greater than the General Conformity Rule applicability threshold, exceed the GHG threshold in the draft CEQ guidance, or contribute to a violation of any federal, state, or local air regulation.

Construction and demolition emissions were estimated for fugitive dust, on- and off-road diesel equipment and vehicles, worker trips, and architectural coatings. Operational emissions would

primarily be from heating emissions for the larger building. The estimated emissions from the proposed action would be below the General Conformity Rule applicability thresholds (Table 4-2). These effects would be minor.

**Table 4-2
Annual air emissions compared to applicability thresholds**

Activity	Emissions (tons/year)						De minimis threshold	Would emissions equal/exceed de minimis levels?
	CO	NO _x	VOC	SO _x	PM10	PM _{2.5}		
Construction and Demolition	3.1	4.9	0.7	< 0.1	0.8	0.3	100 (50) ^a	No
Change in Operations	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		

Note: SO_x = oxides of sulfur, VOC = volatile organic compound

^a De minimis threshold for VOC is 50 tons per year

For analysis purposes, it was assumed that all construction would be compressed into one 12-month period. Therefore, regardless of the ultimate implementation schedule, annual emissions would be less than those shown here. Small changes in the facilities' siting, the ultimate design, and moderate changes in the quantity and types of equipment used would not have a substantial influence on the emission estimates and would not change the determination under the General Conformity Rule or level of effects under NEPA. Detailed calculations of emissions due to the proposed action and a Record of Non-applicability are in Appendix B.

The new headquarters building would be equipped with individual furnaces or boilers for heating. These stationary sources of air emissions could be subject to federal and state air permitting regulations, including New Source Review, Prevention of Significant Deterioration, National Emission Standards for Hazardous Air Pollutants, and New Source Performance Standards. Operational emissions could be reduced by using more energy-efficient units than those used in the facility slated for demolition. JBA would need to perform an air quality regulatory analysis to determine if any Clean Air Act permitting is required for operating any sources of air emissions, and case-by-case determinations would be necessary to determine if the existing sources of emissions would remain on, or new sources would be added to, JBA's Synthetic Minor Permit to Operate.

Stationary internal combustion engines would not exceed 10 percent visible emissions from idling engines and 40 percent visible emissions from operating engines. Exceptions are noted in COMAR 26.11.09.05 B (4). Fuel burning equipment would not discharge visible emissions. Boilers, furnaces, water heaters and other fuel-burning equipment with a maximum heat input rating of 1 million BTU per hour or greater would use low-NO_x technology. Equipment with a heat input rating of less than 1 million BTU per hour would use similar technology, if possible (Andrews AFB 2009).

Contractors performing work on facility HVAC equipment would coordinate with the 11 CES/CEO HVAC Shop to provide required information on service performed and the amount and type of refrigerant disposed of (Andrews AFB 2009).

COMAR outlines precautions that would be required during the construction of the new facilities, such as control of fugitive dust and open burning. All persons responsible for any operation, process, handling, transportation, or storage facility, which could result in fugitive dust, would take reasonable precautions to prevent such dust from becoming airborne. Reasonable precautions

might include using water to control dust from building demolition, construction, road grading, or land clearing. In addition, the construction would be accomplished in full compliance with current Maryland regulatory requirements, with compliant practices or products or both. These requirements include

- Visible emissions (COMAR 26.11.06.02)
- Asphalt paving operations (COMAR 26.11.11.02)
- Open fires allowed without authorization (COMAR 26.11.07.05)
- Portable fuel containers (COMAR 26.11.13.07)
- Architectural coatings (COMAR 26.11.33.00)
- Consumer products (COMAR 26.11.32.00)

The contractor would respond appropriately to minimize dust emissions. Soils at the site and on unpaved access roads would be treated with dust suppressants. Use of dry power brooms and air blowing is not authorized. Wet cutting would be used for all masonry type cutting such as concrete, concrete blocks, stone, and the like. The contractor would provide tarpaulin drop cloths and windscreens under and around sandblasting operations to confine and collect dust, sand, paint, and other debris for disposal. The contractor would not conduct open burning at any sites on base (Andrews AFB 2009).

This listing is not all-inclusive; JBA and any contractors would comply with all applicable air pollution control regulations and *Andrews AFB Environmental Protection Standards for Contracts* (Andrews AFB 2009).

Greenhouse Gases and Climate Change. Under the proposed action, all construction activities combined would generate approximately 454 tons (413 metric tons) of CO₂. A minute increase in GHG would occur from the operations increase of heated area at the new headquarters building. Regardless, the GHG emissions associated with the proposed action would be well below the CEQ threshold. By using new heating and cooling systems and centrally locating the headquarters building, JBA is taking steps to help the DoD reach its GHG reduction goals in accordance with EO 13514.

No Action Alternative. No effects on air quality would result from implementing the No Action Alternative. No construction would occur, and the existing facility would continue to operate as it now does.

4.3 Safety and Occupational Health

Proposed action. No adverse effects on safety and occupational health would be expected from implementing the proposed action on any of the proposed parcels. All contractors would abide by applicable safety requirements, and moving USAPAT headquarter operations to a new facility would not result in a change in operational safety practices. Conducting operations in a modern facility sized to accommodate the number of personnel associated with USAPAT workplace safety in a new USAPAT facility could improve by relieving congested work conditions.

No Action Alternative. No effects on safety and occupational health would be expected from implementing the No Action Alternative. Construction safety would not be an issue under the No Action Alternative. Workplace safety would remain unchanged.

4.4 Earth Resources

Proposed action. Short-term minor adverse effects on soils would be expected from construction equipment use and facility construction. No long-term effects on soils would be expected because

the site would be stabilized to eliminate soil erosion after construction is complete. JBA or its contractors would obtain an NPDES Permit for Stormwater Associated with Construction Activities and would obtain approval from MDE of a Stormwater Management Plan and an Erosion and Sediment Control Plan before any construction activity would begin.

No Action Alternative. No effects on earth resources would result from implementing the No Action Alternative. Construction and soil disturbance would not occur under the No Action Alternative.

4.5 Water Resources

Proposed action. No adverse effects on water resources would be expected from implementing the proposed action. Compliance with federal and state laws and regulations would include constructing the USAPAT facility in compliance with the Energy Independence and Security Act of 2007. Section 438 of that legislation establishes strict stormwater runoff requirements for federal development and redevelopment projects:

Storm water runoff requirements for federal development projects. The sponsor of any development or redevelopment project involving a Federal facility with a footprint that exceeds 5,000 square feet shall use site planning, design, construction, and maintenance strategies for the property to maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the property with regard to the temperature, rate, volume, and duration of flow.

JBA would require that all construction design plans and erosion and sediment control plans comply with federal and state laws and regulations governing stormwater management and erosion and sediment control prior to the commencement of construction, and all construction activities would be conducted in accordance with the approved plans. JBA or its contractor would at a minimum comply with the current edition of *Maryland Stormwater Management Guidelines for State and Federal Projects* and the *Maryland Stormwater Design Manual, Volumes I & II*. Comprehensive environmental site design methods would be integrated into storm water control designs. Emphasis would be on the use of non-structural BMPs when designing storm water management controls, and structural BMPs would only be used after all practical non-structural options are exhausted. Watershed impacts resulting from the construction project and storm water controls would be assessed. Stormwater design for the facility would be in compliance with JBA plans, guidance, and analyses, including the Storm Water Pollution Prevention Plan (SWPPP), the Storm Water Institutional Management Plan, Spill Prevention, Control and Countermeasures Plan, and applicable wetlands delineations and floodplain analyses.

JBA or its contractor would prepare a National Pollutant Discharge Elimination System (NPDES) discharge permit application prior to the start of construction activities in accordance with Maryland State law and regulation, and would obtain the approved permit from MDE and make all necessary notifications before construction begins. A SWPPP would be developed and maintained in accordance with the permit. The contractor would also prepare and submit a storm water management plan and a sedimentation and erosion control plan (both are required for projects that exceed 5,000 square feet in size).

No Action Alternative. No effects on water resources would result from implementing the No Action Alternative. Construction would not occur under the No Action Alternative.

4.6 Infrastructure and Utilities

Proposed action. Long-term minor adverse effects on utilities would be expected. The effects would be from adding to the landfill the debris from construction of the proposed headquarters building and demolition of Building 1778. The existing capacity for all utilities would be adequate for projected demands from the proposed facility.

The proposed action would generate approximately 423 tons of construction and demolition (C&D) debris (Table 4-3). Approximately half of the debris would be recycled, which would result in 212 tons of nonhazardous C&D debris for disposal in an off-site landfill.

Table 4-3
Summary of construction and demolition debris

	Type	Debris generation rate (lb/sq ft)	Debris generated (tons)	Quantity recycled (50%) (tons)	Total quantity disposed of in the landfill (tons)
Construction					
60,000 sq ft	Nonresidential	4.4	26.4	13.2	13.2
Demolition					
6,900 sq ft	Nonresidential	115.0	396.8	198.4	198.4
Total			423.2	211.6	211.6

Source: USEPA 1998

A slight increase in utility systems usage would be expected from implementing the proposed action; although, no change in operations would result. The increase in usage would be because of the physical expansion of the facility from 7,000 to 12,000 square feet. Utility lines are at the adjacent commercial properties with full utility service, alleviating the need for new service connections. Sustainable Design and Development and energy conservation principles would be integrated into the facility design and construction of the facility would be in accordance with EO 13423 and EO 13514, the Energy Policy Act of 2005, the Energy Independence and Security Act 2007, Army Sustainable Design and Development Policy, the Installation Design Guide, and other applicable codes, laws and EOs. The facility would be certified by the U.S. Green Building Council under the Leadership in Energy and Environmental Design rating system with a minimum Silver rating.

No Action Alternative. No effects on infrastructure and utilities would result from implementing the No Action Alternative. No construction would occur, and no change in headquarters operations would take place.

4.7 Transportation

Proposed action. Short-term minor adverse effects would be expected. Short-term effects would result from additional vehicles and day-labor traffic during construction. Traffic would increase because of additional vehicles near demolition and construction sites. These effects would be temporary and would end with the construction and demolition phase. The roadway infrastructure would be sufficient to support the increase in traffic. Although the effects would be minor, contractors would route and schedule construction vehicles to minimize conflicts with other traffic, and strategically locate staging areas to minimize traffic impacts. All construction vehicles would be equipped with backing alarms, two-way radios, and Slow Moving Vehicle signs when appropriate.

On-Base Roadways, Gate Traffic, and Parking. No change in personnel or additional vehicle trips on the base would result from relocating the USAPAT facility. Individuals accessing the proposed facility would most likely use the same gates as they currently use, and the new facility would be reached using installation primary and secondary roads. Personnel would have to cross Arnold Avenue to reach the West Flight Line regardless of which of the proposed sites is selected, with the shortest walk being from the Arnold Avenue and D Street location and the longest being from the D Street and Brookley Avenue location.

Off-Base Roadways. Currently, the 70 personnel at USAPAT most likely travel from off-base and access the installation for training, work, and personal trips during their visit. The facility generates an estimated 300 vehicle trips per day (ITE 2003). No change in personnel or additional vehicle trips to or from the base would result from relocating the USAPAT facility. Individuals accessing the facility would probably use the same gates that they currently use, and no change in off-base traffic would result.

Air, Rail, and Public Transportation. The proposed action would have no appreciable effect on air, rail, or public transportation.

No Action Alternative. No effects on transportation resources would be expected from implementing the No Action Alternative, under which the environmental baseline would not change.

4.8 Hazardous Materials and Wastes

Proposed action. No effects on hazardous materials and wastes would be expected from implementing the proposed action at any of the three proposed locations. Specifications for proposed construction and USAF regulations prohibit the use of asbestos containing materials or lead-based paint for new construction. Construction contractors would be responsible for managing hazardous materials and wastes in accordance with federal and state laws and regulations. It is anticipated that the quantity of hazardous waste generated from proposed construction activities would be negligible.

No Action Alternative. No adverse effects on hazardous materials and wastes would be expected from implementing the No Action Alternative. No changes in the use, storage, or disposal of hazardous materials and wastes would result from continuing to use Building 1778 for USAPAT headquarters operations.

4.9 Biological Resources

Proposed action. No adverse effects on biological resources would be expected from implementing the proposed action on either the D Street and Arnold Avenue site or the D Street and Brookley Avenue site. At either location there would be a minor loss of low-quality (i.e., maintained lawn) habitat, and at the D Street and Arnold Avenue site there would be a loss of approximately 1.5 acres of woods. The action would have no effects on federally or state-listed species or wetlands at the sites. After construction was completed, the selected site would be replanted with grass and native landscaping plants, which would again provide a small amount of low-quality habitat for local wildlife. If D Street and Arnold Avenue site is used, the loss of woods would be replaced in accordance with the JBA Environmental Standards, which require the replanting of 60 percent of the amount of canopy cover removed when more than 1 acre of canopy is lost. The replacement trees would be native species and they would be planted to recreate a stand similar to that removed. Trees along Arnold Avenue would not be removed.

Long-term minor adverse effects on biological resources would be expected from implementing the proposed action on the Westover site from the loss of 2 acres of wooded habitat. The habitat

on the site provides diversity for plants and animals, but it does not support federally or state-listed species. A jurisdictional determination of wetlands would be performed on the Westover site before any ground disturbance would occur if the site is chosen for the USAPAT facility. If wetlands are found, JBA would avoid them or mitigate any loss in accordance with federal and state requirements.

No Action Alternative. No adverse effects on biological resources would be expected from implementing the No Action Alternative. Building 1778 would remain where it is and no ground disturbance would occur under the No Action Alternative.

4.10 Cultural, Historical, and Archaeological Resources

Proposed action. Implementing the proposed action would not be expected to have adverse effects on cultural resources. No properties listed in or eligible for listing in the NRHP are in any of the alternative sites.

No Action Alternative. No effects on historic properties would be expected under the No Action Alternative.

4.11 Socioeconomics, Environmental Justice, and Protection of Children

Proposed action. The socioeconomic effects of implementing the proposed action are discussed below. The effects of implementing the proposed action would be the same regardless of which of the three proposed locations the proposed action is implemented.

EIFS Model Methodology. The economic effects of implementing the proposed action are estimated using the Economic Impact Forecast System (EIFS) model, a computer-based, economic tool that calculates multipliers to estimate the direct and indirect effects resulting from an action. Changes in spending and employment that would be caused by constructing the proposed battalion headquarters facility represent the direct effects of the action. Using the input data and calculated multipliers, the model estimates ROI changes in sales volume, income, employment, and population, accounting for the total direct and indirect effects of the action.

For purposes of this analysis, a change is considered significant if it is outside the historical range of ROI economic variation. To determine that range, the EIFS model calculates a rational threshold value (RTV) profile for the ROI. That analytical process uses historical data for the ROI and calculates fluctuations in sales volume, income, employment, and population patterns. The historical extremes for the ROI become the thresholds of significance (i.e., the RTVs) for social and economic change. If the estimated effect of the proposed action is above the positive RTV or below the negative RTV, the effect is considered significant. Appendix C discusses the methodology in more detail and presents the model inputs and outputs developed for this analysis.

EIFS model results. Short-term minor beneficial economic effects on the regional economy would be expected from implementing the proposed action. The expenditures and employment associated with the proposed demolition and construction activity would increase ROI sales volume, employment, and income, as determined by the EIFS model (Table 4-4 and Appendix C). The economic benefits would short-term, lasting for the duration of the construction period. Such changes in sales volume, employment, and income would be within historical fluctuations (i.e., within the RTV ranges) and would be considered minor. No effects would be expected on population. The proposed action to construct a battalion headquarters facility does not include assigning new personnel from outside the region to JBA; therefore, this action would not change the population of JBA or the ROI.

Table 4-4
EIFS model output

Variable	Projected total change	Percent change	RTV range
Sales (business) volume	\$21,791,000	0.07%	-5.32% to 13.74%
Income	\$3,984,345	0.02%	-4.48% to 11.72%
Employment	92	0.02%	-4.17% to 4.59%
Population	0	0.00%	-0.85% to 3.30%

Source: EIFS model

Law enforcement, fire protection, and medical services. No effects on law enforcement, fire protection, or emergency medical services would be expected. The proposed battalion headquarters building would be on JBA property in the jurisdiction of the base's security forces and fire department, which would continue to respond to emergencies at the new building as they do with the existing Building 1778. The new facility would have all the safety requirements required by law (such as fire alarms and sprinklers), and an intrusion detection system. The project has been coordinated with the base's physical security plan, and all physical security and fire access measures were considered.

Environmental justice. No effects would be expected. Implementing the proposed action to construct and operate a battalion headquarters facility would not result in disproportionate adverse environmental or health effects on low-income or minority populations.

Protection of children. Short-term, minor, adverse effects on the protection of children could occur. The proposed site is near to areas where children can be present. Because construction sites can be enticing to children, construction activity could be an increased safety risk. Therefore, during construction, appropriate federal and state safety measures and health regulations would be followed to protect the health and safety of all residents. Safety measures, barriers, and *no trespassing* signs would be placed around the perimeter of construction sites to deter children from playing in these areas, and construction vehicles and equipment would be secured when not in use. Such measures would reduce the risk of potential harm to children.

No Action Alternative. No socioeconomic effects would be expected if the No Action Alternative was implemented.

4.12 Land Use and Visual Resources

Proposed action. No adverse effects on land use would be expected from implementing the proposed action. All three sites are in a developed area of JBA, and use of any of the three proposed sites would be fully compatible with existing and planned future land uses surrounding the sites. The proposed action would not conflict with any applicable on or off-base land use ordinances or designated clear zones.

No Action Alternative. An adverse effect on land use would be expected from implementing the No Action Alternative. The location of Building 1778 close to the west flight line conflicts with the General Plan goal of locating only flight-essential missions along the flight line, and a future land-use conflict would result as other flight-essential missions are positioned along the flight line.

4.13 Sustainability and Greening

Proposed action. Implementation of the proposed action would have long-term positive effects on sustainability at Andrews. Redevelopment of the outdated facilities with a modern and more

functional USAPAT headquarters facility adheres to the base's mission to develop new infrastructure that meets federal sustainability and greening goals and practices. The construction of a new USAPAT headquarters facility would meet LEED Silver standard designation and would meet or exceed the intent of EO 13514. The project intends to meet the requirements of the Energy Policy Act 2005, Energy Independence and Security Act of 2007, and EOs 13423 and 13514. To the extent possible, the construction project would be implemented using sustainable design concepts. Requirements for Energy Star-rated products and green products in accordance with EO 13423 would be incorporated into the specifications of the project. In addition to using the LEED rating system and mandating a Silver Certification rating, the proposed action would evaluate technologies and features such as green or reflective roofs; rainwater harvesting; alternative HVAC systems; and alternative lighting technologies to help achieve the LEED Silver Certification rating and meet the requirements of EO 13514.

No Action Alternative. Under the No Action Alternative, the proposed action would not be implemented and USAPAT headquarters operations would continue out of Building 1778. Although Building 1778 is old and inefficient compared to modern sustainable facilities, it is approximately half the size of the planned new facility, so from an energy perspective the No Action Alternative might not be disadvantageous. The systems of the existing facility, however, would be expected to consume more energy over the long term because of increasing maintenance demands and system inefficiencies. Implementing the No Action Alternative would not follow the base design for energy-efficient facilities.

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5 Cumulative Impacts and Irreversible and Irretrievable Commitment of Resources

Cumulative effects arising from the proposed action would include those on the noise environment, air quality, biological resources, stormwater, and the regional economy. The effects on the noise environment, air quality, and the regional economy would be short-term, generally lasting only as long as facility construction and demolition. The effects on biological resources and stormwater would be long-term, but would be insignificant in the context of Andrews and the region.

The irreversible environmental changes that would result from implementation of the proposed action involve the consumption of material resources, energy resources, land, biological habitat, and human resources. The use of these resources is considered to be permanent. Irretrievable uses of materials and energy would occur as a result of construction, facility operation, and maintenance activities. The irretrievable loss of energy, labor, materials, and funds associated with implementation of the proposed action would be inconsequential to the amount of these resources currently available and being used in other areas around Andrews. None of the materials that would be consumed are in short supply, would not limit other unrelated construction activities, and would not be considered significant. Sustainable materials would be used where possible.

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7 References

- AAFB. 2010. *General Plan Update, Joint Base Andrews–Naval Air Facility, Washington, Maryland*. 100% submission. January.
- Andrews AFB (Air Force Base; aka Joint Base Andrews). 2009. *Andrews AFB Environmental Protection Standards for Contracts*. 2009.
- ANSI (American National Standard Institute). 2003. *American National Standard Quantities and Procedures for Description and Measurement of Environmental Sound. Part 3: Short-term measurements with an observer present*. 2003. ANSI S12.9-1993 (R2003)/Part 3.
- BEA (Bureau of Economic Analysis). 2011. *Regional Economic Accounts, Local Area Personal Income, Total Employment by Industry*.
<<http://www.bea.gov/regional/reis/default.cfm?&selTable=CA25N&series=NAICS>>. Accessed April 2012.
- BLS (Bureau of Labor Statistics). 2012. *Local Area Unemployment Statistics*.
<<http://www.bls.gov/data/#unemployment>>. Accessed April 2012.
- CARB (California Air Resources Board). 2011. *EMFAC Emission Rates Database*.
<http://www.arb.ca.gov/jpub/webapp/EMFAC2011WebApp/rateSelectionPage_1.jsp>. Accessed April 2012.
- CEQ (Council on Environmental Quality). 2010. *Memorandum for Heads of Federal Departments and Agencies on Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions*. <http://ceq.hss.doe.gov/nepa/regs/Consideration_of_Effects_of_GHG_Draft_NEPA_Guidance_FINAL_02182010.pdf>. Council on Environmental Quality, Washington, DC. 18 February. 12 pp.
- DOD (Department of Defense). 2010. *Installations Practice Energy Conservation*.
<<http://www.defense.gov/releases/release.aspx?releaseid=13276>>. Accessed April 2012.
- Department of the Air Force. 2012. *Draft Environmental Assessment Stormwater System Repair And Upgrades Joint Base Andrews-Naval Air Facility Washington, Maryland*. Department of the Air Force, Joint Base Andrews, MD.
- DOE (U.S. Department of Energy). 2003. *Consumption and Gross Energy Intensity by Census Region for Sum of Major Fuels, Commercial Buildings Energy Consumption Survey*. U.S. Department of Energy, Washington, DC.
- Harris, C.M. 1998. *Handbook of Acoustical Measurement and Noise Control*. Acoustical Society of America. Sewickley, PA.
- IPCC (Intergovernmental Panel on Climate Change). 2007. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, United Kingdom, 1000 pp.
- ITE (Institute of Transportation Engineers). 2003. *Transportation Engineers Trip Generation Manual*. 7th Edition. Institute of Transportation Engineers, Washington, DC.

- JBA (Joint Base Andrews). Undated a. *PD-680 Spill Site. ST-10*. Joint Base Andrews, Inside Andrews AFB. <<http://www.andrews.af.mil/library/environmental/environmentalsites/st10.asp>>. Accessed April 24, 2012.
- JBA (Joint Base Andrews). Undated b. *AAFES Service Station. ST-17*. Joint Base Andrews, Inside Andrews AFB. <<http://www.andrews.af.mil/library/environmental/environmentalsites/st17.asp>>. Accessed April 24, 2012.
- JBA (Joint Base Andrews). 2010. *Joint Base Andrews 2011 Base Guide*. <<http://www.andrews.af.mil/shared/media/document/AFD-110418-017.pdf>>. Accessed April 2012.
- JBA (Joint Base Andrews). 2011. *General Plan Environmental Assessment for the Joint Base Andrews-Naval Air Facility, Washington, Maryland. Final*. U.S. Air Force Center for Engineering and the Environment.
- MDE (Maryland Department of the Environment). 2012. *List of Issued Operating Permits and their Expiration Dates*. <<http://www.mde.state.md.us/programs/ResearchCenter/ReportsandPublications/Pages/researchcenter/publications/general/emde/vol1no9/forthecord.aspx>>. Accessed April 2012.
- MDP (Maryland Department of Planning). 2010. *Historical and Projected Total Population for Maryland's Jurisdictions*. <http://www.mdp.state.md.us/msdc/popproj/TotalPop_2040.pdf>. Accessed April 2012.
- MD SHA (Maryland State Highway Administration). 2011. *Maryland Traffic Volume Map for Prince George's County*. <http://www.roads.maryland.gov/Traffic_Volume_Maps/princegeorges.pdf>. Accessed April 2012.
- SCAQMD (South Coast Air Quality Management District). 1993. *CEQA Air Quality Handbook*.
- URS. 2012. *Joint Base Andrews Storm Water Final Draft Environmental Assessment*. February 2012.
- USACE (U.S. Army Corps of Engineers) Baltimore District. 2007. *Revised Integrated Natural Resources Management Plan (2006–2011) for Andrews Air Force Base*. Prepared for Andrews Air Force Base, Environmental Flight, 316 CES/CEVP. Prepared by U.S. Army Corps of Engineers, Baltimore District, Baltimore, MD.
- USACE (U.S. Army Corps of Engineers) Baltimore District. 2009. *Integrated Cultural Resources Management Plan*. Prepared for 316th CES/CEA Andrews AFB, MD, by U.S. Army Corps of Engineers, Baltimore District.
- U.S. Air Force. 2005. Air Force Instruction 32-7063. <<http://www.e-publishing.af.mil/shared/media/epubs/AFI32-7063.pdf>>. Accessed April 2012.
- US Census Bureau. 2005. *Interim Projections of the Total Population for the United States and States: April 1, 2000 to July 1, 2030*. <<http://www.census.gov/population/projections/SummaryTabA1.pdf>>. Accessed April 2012.

- US Census Bureau. 2012a. *American Community Survey 2010 1-Year Estimates*.
<http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?_afpt=table>.
Accessed April 2012.
- US Census Bureau. 2012b. *State and County QuickFacts*.
<<http://quickfacts.census.gov/qfd/index.html>>. Accessed April 2012.
- USEPA (U.S. Environmental Protection Agency). 1971. *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances*. Washington, DC: s.n., Publication NTID300.1.
- USEPA (U.S. Environmental Protection Agency). 1995. *Compilation of Air Pollutant Emission Factors, AP-42, 5th edition, Vol. I: Stationary Point and Area Sources*.
- USEPA (U.S. Environmental Protection Agency). 1998. *Characterization of Building-Related Construction and Demolition Debris in the United States*. Report No. EPA530-R-98-010. U.S. Environmental Protection Agency, Municipal and Industrial Solid Waste Division, Office of Solid Waste, Washington, DC.
- USEPA (U.S. Environmental Protection Agency). 2005. *Methodology to Estimate the Transportable Fraction (TF) of Fugitive Dust Emissions for Regional and Urban Scale Air Quality Analyses*. <http://www.epa.gov/ttn/chief/emch/dustfractions/transportable_fraction_080305_rev.pdf>. Accessed April 2012.
- USEPA (U.S. Environmental Protection Agency). 2012a. *Nonattainment Status for Prince George's County, Maryland*. <<http://www.epa.gov/air/oaqps/greenbk/ancl.html#MARYLAND>>. Accessed April 2012.
- USEPA (U.S. Environmental Protection Agency). 2012b. *Air Quality Statistics Report for Prince George's County for 2011*. <<http://www.epa.gov/airdata>>. Accessed April 2012.
- USEPA (U.S. Environmental Protection Agency). 2012c. *Climate Change - Health and Environmental Effects*. <<http://epa.gov/climatechange/index.html>>. Accessed April 2012.
- USEPA (U.S. Environmental Protection Agency). 2012d. *National Ambient Air Quality Standards (NAAQS)*. <<http://www.epa.gov/air/criteria.html>>. Accessed April 2012.
- USDA NRCS (U.S. Department of Agriculture, Natural Resources Conservation Service). 2012. *Web Soil Survey*. <<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>>. Accessed April 10, 2012.
- USGS (U.S. Geological Survey). 2011. *Anacostia Quadrangle, District of Columbia-Maryland*. 7.5-minute series, 1:24,000 scale topographic map. U.S. Department of the Interior, U.S. Geological Survey.

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Appendix A
Interagency and Intergovernmental Coordination
for Environmental Planning

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**DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 11TH WING (AFDW)
JOINT BASE ANDREWS, MARYLAND 20762**

17 September 2012

Ms. Barbara Rudnick
NEPA Team Leader
Office of Environmental Programs (3EA30)
U.S. Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103-2029

Dear Ms. Rudnick:

Joint Base Andrews-Naval Air Facility Washington, Maryland has prepared an Environmental Assessment (EA) for construction of a Battalion Headquarters facility for the U.S. Army Priority Air Transport at Joint Base Andrews. Pursuant to the National Environmental Policy Act (NEPA) of 1969 (42 *United States Code* 4321–4347), Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 *Code of Federal Regulations* [CFR] Sections 1500–1508), and 32 CFR Part 989, *et seq.*, the EA considers the potential consequences to human health and the natural environment. The EA examines the effects of the proposed construction project and includes an analysis of the required No Action Alternative.

In accordance with Executive Order 12372, *Intergovernmental Review of Federal Programs*, we invite the U.S. Environmental Protection Agency to comment on the draft EA and draft Finding of No Significant Impact (FONSI). Please distribute the draft EA and FONSI as appropriate for review. A Notice of Availability of the draft EA and draft FONSI will be published on 20 September 2012 in the *Upper Marlboro/Clinton/Ft. Washington Gazette* and on 21 September 2012 in the *Andrews Gazette*. Both newspapers are published weekly in Prince Georges County, Maryland. The draft EA and draft FONSI are available online at <http://www.andrews.af.mil/library/environmental/index.asp>.

Please provide written comments by 22 October 2012 to my attention at 11 CES/CEAO, 3466 North Carolina Avenue, Joint Base Andrews, MD 20762 or send via email to anne.hodges@afncr.af.mil. If you need further information please contact me at (301) 981-1426.

Sincerely,

A handwritten signature in blue ink that reads "Anne M. Hodges".

ANNE M. HODGES
Environmental Planner



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 11TH WING (AFDW)
JOINT BASE ANDREWS, MARYLAND 20762

17 September 2012

Josie Fiore, Branch Manager
Prince George's County Memorial Library System
Upper Marlboro Branch
14730 Main Street
Upper Marlboro, MD 20772

Dear Ms. Fiore:

Joint Base Andrews-Naval Air Facility Washington, Maryland (Joint Base Andrews) has prepared an Environmental Assessment (EA) for construction of a Battalion Headquarters facility for the U.S. Army Priority Air Transport at Joint Base Andrews. Pursuant to the National Environmental Policy Act (NEPA) of 1969 (42 *United States Code* 4321–4347), Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 *Code of Federal Regulations* [CFR] Sections 1500–1508), and 32 CFR Part 989, *et seq.*, the EA considers the potential consequences to human health and the natural environment. The EA examines the effects of the proposed construction project and includes an analysis of the required No Action Alternative.

In accordance with Executive Order 12372, *Intergovernmental Review of Federal Programs*, Joint Base Andrews invites the interested public to comment on the draft EA and draft Finding of No Significant Impact (FONSI). Please make the enclosed draft EA and FONSI available to the interested public at your library through 22 October 2012. A Notice of Availability of the draft EA and draft FONSI will be published on 20 September 2012 in the *Upper Marlboro/Canton/Ft. Washington Gazette* and on 21 September 2012 in the *Andrews Gazette*. The draft EA and draft FONSI are available online at <http://www.andrews.af.mil/library/environmental/index.asp>.

Questions regarding this matter can be addressed to Ms. Anne Hodges, 11 CES/CEAO, 3466 North Carolina Avenue, Joint Base Andrews, MD 20762, by phone at (301)981-1426, or via email at anne.hodges@afncr.af.mil.

Sincerely,

A handwritten signature in blue ink that reads "Anne M. Hodges".

ANNE M. HODGES
Environmental Planner

Enclosure



**DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 11TH WING (AFDW)
JOINT BASE ANDREWS, MARYLAND 20762**

17 September 2012

Mrs. Linda C. Janey, J.D.
Director, Maryland State Clearinghouse
Maryland Office of Planning, Room 1104
301 West Preston Street
Baltimore, MD 21201-2365

Dear Ms. Janey:

Joint Base Andrews-Naval Air Facility Washington, Maryland (Joint Base Andrews) has prepared an Environmental Assessment (EA) for construction of a Battalion Headquarters facility for the U.S. Army Priority Air Transport at Joint Base Andrews. Pursuant to the National Environmental Policy Act (NEPA) of 1969 (42 *United States Code* 4321–4347), Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 *Code of Federal Regulations* [CFR] Sections 1500–1508), and 32 CFR Part 989, *et seq.*, the EA considers the potential consequences to human health and the natural environment. The EA examines the effects of the proposed construction project and includes an analysis of the required No Action Alternative.

In accordance with Executive Order 12372, *Intergovernmental Review of Federal Programs*, we invite Maryland agencies to comment on the draft EA and draft Finding of No Significant Impact (FONSI). We also request your assistance in advising appropriate agencies of this action and soliciting their comments regarding potential environmental impacts. A Notice of Availability of the draft EA and draft FONSI will be published on 20 September 2012 in the *Upper Marlboro/Clinton/Ft. Washington Gazette* and on 21 September 2012 in the *Andrews Gazette*. Both newspapers are published weekly in Prince Georges County, Maryland. The draft EA and draft FONSI are available online at <http://www.andrews.af.mil/library/environmental/index.asp>.

Please provide written comments by 22 October 2012 to my attention at 11 CES/CEAO, 3466 North Carolina Avenue, Joint Base Andrews, MD 20762 or send via email to anne.hodges@afncr.af.mil. If you need further information please contact me at (301) 981-1426.

Sincerely,

A handwritten signature in blue ink that reads "Anne M. Hodges".

ANNE M. HODGES
Environmental Planner



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 11TH WING (AFDW)
JOINT BASE ANDREWS, MARYLAND 20762

17 September 2012

Joint Base Andrews Library
1642 Brookley Ave.
Joint Base Andrews AFB, MD 20762

SUBJECT: Draft Environmental Assessment (EA) for construction of a Battalion Headquarters facility for the U.S. Army Priority Air Transport at Joint Base Andrews

Joint Base Andrews-Naval Air Facility Washington, Maryland (Joint Base Andrews) has prepared an Environmental Assessment (EA) for construction of a Battalion Headquarters facility for the U.S. Army Priority Air Transport at Joint Base Andrews. Pursuant to the National Environmental Policy Act (NEPA) of 1969 (42 *United States Code* 4321–4347), Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 *Code of Federal Regulations* [CFR] Sections 1500–1508), and 32 CFR Part 989, *et seq.*, the EA considers the potential consequences to human health and the natural environment. The EA examines the effects of the proposed construction project and includes an analysis of the required No Action Alternative.

In accordance with Executive Order 12372, *Intergovernmental Review of Federal Programs*, Joint Base Andrews invites the interested public to comment on the draft EA and draft Finding of No Significant Impact (FONSI). Please make the enclosed draft EA and FONSI available to the interested public at the library through 22 October 2012. A Notice of Availability of the draft EA and draft FONSI will be published on 20 September 2012 in the *Upper Marlboro/Clinton/Ft. Washington Gazette* and on 21 September 2012 in the *Andrews Gazette*. The draft EA and draft FONSI can also be accessed online at <http://www.andrews.af.mil/library/environmental/index.asp>.

Questions regarding this matter can be addressed to Ms. Anne Hodges, 11 CES/CEAO, 3466 North Carolina Avenue, Joint Base Andrews, MD 20762-4803, by phone at 301-981-1426, or via email at anne.hodges@afncr.af.mil.

Sincerely,

A handwritten signature in blue ink that reads "Anne M. Hodges".

ANNE M. HODGES
Environmental Planner

Enclosure



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 11TH WING (AFDW)
JOINT BASE ANDREWS, MARYLAND 20762

17 September 2012

Ms. Genevieve Larouche
U.S. Fish & Wildlife Service
Chesapeake Bay Field Office
177 Admiral Cochrane Drive
Annapolis, MD 21401

Dear Ms. Larouche:

Joint Base Andrews-Naval Air Facility Washington, Maryland (Joint Base Andrews) has prepared an Environmental Assessment (EA) for construction of a Battalion Headquarters facility for the U.S. Army Priority Air Transport at Joint Base Andrews. Pursuant to the National Environmental Policy Act (NEPA) of 1969 (42 *United States Code* 4321–4347), Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 *Code of Federal Regulations* [CFR] Sections 1500–1508), and 32 CFR Part 989, *et seq.*, the EA considers the potential consequences to human health and the natural environment. The EA examines the effects of the proposed construction project and includes an analysis of the required No Action Alternative.

In accordance with Executive Order 12372, *Intergovernmental Review of Federal Programs*, we invite the U.S. Fish & Wildlife Service to comment on the draft EA and draft Finding of No Significant Impact (FONSI). Please distribute the draft EA and FONSI as appropriate for review. A Notice of Availability of the draft EA and draft FONSI will be published on 20 September 2012 in the *Upper Marlboro/Clinton/Ft. Washington Gazette* and on 21 September 2012 in the *Andrews Gazette*. Both newspapers are published weekly in Prince Georges County, Maryland. The draft EA and draft FONSI are available online at <http://www.andrews.af.mil/library/environmental/index.asp>.

Please provide written comments by 22 October 2012 to my attention at 11 CES/CEAO, 3466 North Carolina Avenue, Joint Base Andrews, MD 20762 or send via email to anne.hodges@afncr.af.mil. If you need further information please contact me at (301) 981-1426.

Sincerely,

A handwritten signature in blue ink that reads "Anne M. Hodges".

ANNE M. HODGES
Environmental Planner



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 11TH WING (AFDW)
JOINT BASE ANDREWS, MARYLAND 20762

17 September 2012

Ms. Fern Piret
Director of Planning
Prince George's County Department of Planning
14741 Governor Oden Bowie Drive
Room 4150
Upper Marlboro, MD 20772

Dear Ms. Piret:

Joint Base Andrews-Naval Air Facility Washington, Maryland (Joint Base Andrews) has prepared an Environmental Assessment (EA) for construction of a Battalion Headquarters facility for the U.S. Army Priority Air Transport at Joint Base Andrews. Pursuant to the National Environmental Policy Act (NEPA) of 1969 (42 *United States Code* 4321–4347), Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 *Code of Federal Regulations* [CFR] Sections 1500–1508), and 32 CFR Part 989, *et seq.*, the EA considers the potential consequences to human health and the natural environment. The EA examines the effects of the proposed construction project and includes an analysis of the required No Action Alternative.

In accordance with Executive Order 12372, *Intergovernmental Review of Federal Programs*, we invite Prince George's County to comment on the draft EA and draft Finding of No Significant Impact (FONSI). Please distribute the draft EA and FONSI as appropriate for review. A Notice of Availability of the draft EA and draft FONSI will be published on 20 September 2012 in the *Upper Marlboro/Clinton/Ft. Washington Gazette* and on 21 September 2012 in the *Andrews Gazette*. Both newspapers are published weekly in Prince Georges County, Maryland. The draft EA and draft FONSI are available online at <http://www.andrews.af.mil/library/environmental/index.asp>.

Please provide written comments by 22 October 2012 to my attention at 11 CES/CEAO, 3466 North Carolina Avenue, Joint Base Andrews, MD 20762 or send via email to anne.hodges@afncr.af.mil. If you need further information please contact me at (301) 981-1426.

Sincerely,

A handwritten signature in blue ink that reads "Anne M. Hodges".

ANNE M. HODGES
Environmental Planner



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 11TH WING (AFDW)
JOINT BASE ANDREWS, MARYLAND 20762

17 September 2012

Mr. Michael Weil
National Capital Planning Commission
401 9th Street, NW
North Lobby, Suite 500
Washington, DC 20004

Dear Mr. Weil:

Joint Base Andrews-Naval Air Facility Washington, Maryland (Joint Base Andrews) has prepared an Environmental Assessment (EA) for construction of a Battalion Headquarters facility for the U.S. Army Priority Air Transport at Joint Base Andrews. Pursuant to the National Environmental Policy Act (NEPA) of 1969 (42 *United States Code* 4321–4347), Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 *Code of Federal Regulations* [CFR] Sections 1500–1508), and 32 CFR Part 989, *et seq.*, the EA considers the potential consequences to human health and the natural environment. The EA examines the effects of the proposed construction project and includes an analysis of the required No Action Alternative.

In accordance with Executive Order 12372, *Intergovernmental Review of Federal Programs*, we invite the National Capital Planning Commission to comment on the draft EA and draft Finding of No Significant Impact (FONSI). Please distribute the draft EA and FONSI as appropriate for review. A Notice of Availability of the draft EA and draft FONSI will be published on 20 September 2012 in the *Upper Marlboro/Clinton/Ft. Washington Gazette* and on 21 September 2012 in the *Andrews Gazette*. Both newspapers are published weekly in Prince Georges County, Maryland. The draft EA and draft FONSI are available online at <http://www.andrews.af.mil/library/environmental/index.asp>.

Please provide written comments by 22 October 2012 to my attention at 11 CES/CEAO, 3466 North Carolina Avenue, Joint Base Andrews, MD 20762 or send via email to anne.hodges@afncr.af.mil. If you need further information please contact me at (301) 981-1426.

Sincerely,

A handwritten signature in blue ink that reads "Anne M. Hodges".

ANNE M. HODGES
Environmental Planner

Joint Base Andrews



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Andrews Air Force Base Environmental Home Page



Supporting the Andrews Air Force Base Mission Through Sound Environmental Stewardship
The U.S. Air Force Environmental team is recognized as world leaders, with environmental stewardship woven into the heart of the Air Force mission. The Environmental Flight's mission is to support the Andrews Air Force Base mission through sound environmental stewardship.

Mission

The Four Pillars

The four pillars of the Air Force environmental mission are quality, conservation and planning, pollution prevention, and restoration.

The Environmental Flight works with all elements of the base, regulatory agencies and the community to ensure the job gets done in a sustainable manner. By working cooperatively, the Andrews team will continue to comply with environmental laws, preserve the natural environment, and accomplish its Global Airlift mission.

The hard working dedication of the Andrews Environmental Team was recognized with the 2004 Environmental Flight of the Year Award in Air Mobility Command.

Conservation

Conservation and Planning

Joint Base Andrews conserves natural and cultural resources through effective environmental planning. The environmental consequences of proposed actions and reasonable alternatives are integrated into all levels of decision making. The environmental resources under Joint Base Andrews stewardship are protected and managed in the public interest.

The Conservation Pillar of Environmental Management consists of the Environmental Impact and Analysis Process, Cultural Resources Management Program and Natural Resources Management Program. Each program has a unique purpose in support of Andrews Air Force Base. To learn more about each process and program click [here](#).

Quality

Environmental Quality

The Environmental Quality section ensures that Andrews AFB complies with applicable environmental laws, regulations and guidelines. In addition, the section is responsible for directing efforts to eliminate or reduce pollution.

Through coordination, management and regular assessments, such as the Environmental Compliance Assessment and Management Program (ECAMP), the Environmental Quality section strives to minimize mission impacts on the environment. Support from the Unit Environmental Coordinators (UECs), ensures base wide participation.

The Environmental Quality Pillar consists of the Air Quality Management Program, Water/Wastewater Program, and Toxics/Asbestos Program. To learn more about each program click [here](#).

Pollution Prevention

Pollution Prevention

The Air Force Pollution Prevention Program was implemented as part of the Air Force's commitment to forward-thinking environmental leadership. It involves efforts at all levels of the Air Force to reduce wastes through a hierarchy of actions established by Pollution Prevention Act of 1990.

The Pollution Prevention Pillar of Environmental Management consists of Recycling and the Haz Mat Management Program. Each program has a unique purpose in support of Andrews AFB. To learn more about each process and program click [here](#).

Restoration

Joint Base Andrews Environmental Restoration Program (ERP)

Historical methods of hazardous waste disposal at Air Force sites across the country have created a legacy of environmental impacts. The Environmental Restoration Program (ERP) was established to identify, assess, investigate, and clean up existing contamination on the base. The process is based on the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), as well as the National Oil and Hazardous Substances Contingency Plan (NCP).

Joint Base Andrews was listed on the National Priorities List in 1999, which spurred on major changes in the manner in which Andrews pursues environmental restoration. Andrews AFB is pursuing a comprehensive approach to restoring affected areas and ensuring beneficial reuse of natural resources. The Andrews Restoration team works closely with its regulatory partners, consisting of the US EPA, Maryland Department of Environment, and the Prince George's County Health Department, to achieve its goals. Scientists and engineers are using innovative and cost-effective strategies to remediate contamination from petroleum and a variety of hazardous substances.

For more information on ERP, click [here](#).

To review on and off base sites where cleanup efforts are currently underway click [here](#).

NOTICE OF AVAILABILITY

The Air Force District of Washington and the 11th Wing announce the availability of and invite public comments on the Draft Environmental Assessment and Draft Finding of No Significant Impact for the Construction and Operation of a Battalion Headquarters for the U.S. Army Priority Air Transport at Joint Base Andrews.

Under the Proposed Action, USAPAT would construct a small battalion headquarters facility to meet current battalion needs. No increase in the number of USAPAT personnel at JBA is anticipated, and no change in USAPAT operations is anticipated. The Draft EA shows that the Proposed Action would not significantly impact the environment and supports a FONSI. Consequently, an Environmental Impact Statement is not needed.

Copies of the Draft EA and Draft FONSI are available for review until October 22, 2012, at the Upper Marlboro Branch Library of the Prince George's County Memorial Library System.

Copies are also available at the JBA Library at 1642 Brookley Ave. Click [HERE](#) to read the Draft EA, and [HERE](#) to read the Draft FONSI.

Comments should be sent to Anne Hodges, 11th Civil Engineer Squadron, 3466 North Carolina Ave, Joint Base Andrews, Md. 20762-4803, no later than 30 days from the publication of this notice (Sept. 20, 2012).

Environmental Documents

- ▶ Air Force Renewable Energy Program
- ▶ Environmental Strategic Plan PDF
- ▶ Earth Week Slide Show
- ▶ Final Restoration Advisory Board Rule
- ▶ Fact Sheet Air Quality Management
- ▶ Fact Sheet Environmental Program
- ▶ Fact Sheet Water Quality Management
- ▶ Fact Sheet Natural Resources Management

Environmental News

- Ellsworth continues record of excellence in environmental compliance
- Master plan cleanup efforts kick off at BRAC Industry Day
- Ellsworth to accept membership into EPA Track Performance Program
- Air Force recognizes outstanding real estate professionals
- Cleanup program on fast track
- Propulsion shops work together, eliminate waste
- EPA recognizes Air Force for its 'green power' achievements

Inside JBA

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Environmental Links

Final Andrews ANRMP

Final Supplemental Env. Assessment for the Ambulatory Care Center, June 2011

Environmental Assessment for General Plan Update, April 2011

Andrews Air Force Base Maryland Air Installation Compatible Use Zone (AICUZ) Study

Impact (FONSI) for the proposed Ambulatory Care Center at Joint Base Andrews-Naval Air Facility Washington

Public Affairs Office

11th Wing Public Affairs
William A. Jones III Building
1500 Perimeter Road
Room 2330
Joint Base Andrews, Md. 20762

Base Operator	301-981-1110
Public Affairs Office	240-612-4428
Photo Journalism	240-612-4429
Photography	240-612-4430
Broadcasting	240-612-4431

****Covers Upper Marlboro, Clinton & Fort Washington***

Draft Environmental Assessment and Draft Finding of No Significant Impact for Joint Base Andrews-Naval Air Facility Washington, Maryland

The Air Force District of Washington and the 11th Wing announce the availability of and invite public comments on the Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the Construction and Operation of a Battalion Headquarters for the U.S. Army Priority Air Transport (USAPAT) at Joint Base Andrews (JBA). Under the proposed action, USAPAT would construct a small battalion headquarters facility to meet current battalion needs. No increase in the number of USAPAT personnel at JBA is anticipated, and no change in USAPAT operations is anticipated. The Draft EA shows that the proposed action would not significantly impact the environment and supports a FONSI. Consequently, an environmental impact statement is not needed. Copies of the Draft EA and Draft FONSI are available for review for 30 days from the publication of this notice at the Upper Marlboro Branch Library of the Prince George's County Memorial Library System. Copies are also available at the JBA Library at 1642 Brookley Ave. The Draft EA and Draft FONSI are available online at

<http://www.andrews.af.mil/library/environmental/index.asp>.

Comments should be sent to Anne Hodges, 11th Civil Engineer Squadron, 3466 North Carolina Ave, Joint Base Andrews, MD, 20762-4803, by no later than 30 days from the publication of this notice.

(9-20-12)

Draft Environmental Assessment and Draft Finding of No Significant Impact for Joint Base Andrews-Naval Air Facility Washington, Maryland

The Air Force District of Washington and the 11th Wing announce the availability of and invite public comments on the Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the Construction and Operation of a Battalion Headquarters for the U.S. Army Priority Air Transport (USAPAT) at Joint Base Andrews (JBA). Under the proposed action, USAPAT would construct a small battalion headquarters facility to meet current battalion needs. No increase in the number of USAPAT personnel at JBA is anticipated, and no change in USAPAT operations is anticipated. The Draft EA shows that the proposed action would not significantly impact the environment and supports a FONSI. Consequently, an environmental impact statement is not needed. Copies of the Draft EA and Draft FONSI are available for review for 30 days from the publication of this notice at the Upper Marlboro Branch Library of the Prince George's County Memorial Library System. Copies are also available at the JBA Library at 1642 Brookley Ave. The Draft EA and Draft FONSI are available online at <http://www.andrews.af.mil/library/environmental/index.asp>. Comments should be sent to Anne Hodges, 11th Civil Engineer Squadron, 3466 North Carolina Ave, Joint Base Andrews, MD, 20762-4803, by no later than 30 days from the publication of this notice.

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Appendix B
**Record of Non-Applicability (RONA), Emission Calculations, and Solid
Waste Calculations**

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RECORD OF NON-APPLICABILITY

In Accordance with the Clean Air Act- General Conformity Rule for
the Proposed U.S. Army Priority Transport Command
Joint Base Andrews-Naval Air Facility Washington, Maryland

The Army proposes to construct a small battalion headquarters facility at Joint Base Andrews, Maryland. U.S. Army Priority Transport Command would be expected to meet Joint Base Andrews's facility requirements through operation and maintenance of the existing facilities. The action would generate new direct and indirect emissions from the construction and operation of the additional facility.

General Conformity under the Clean Air Act, Section 176 has been evaluated according to the requirements of Title 40 of the *Code of Federal Regulations* Part 93, Subpart B. The requirements of this rule are applicable to the action because:

The highest total annual direct and indirect emissions from this Proposed Action Alternatives have been estimated at 4.9 tons of nitrogen oxides (NO_x), 0.7 ton of volatile organic compounds (VOCs), 0.3 ton of fine particulate matter (PM_{2.5}), and less than 0.1 ton of sulfur dioxide (SO₂) per year, which would be below the applicability threshold values of 50 tons VOCs, and 100 tons for SO₂, PM_{2.5} and NO_x.

Supported documentation and emission estimates:

- (X) Are Attached
- () Appear in the NEPA Documentation
- () Other (Not Necessary)



STEVE RICHARDS
Chief of Environmental Management

3 Dec 2012

Date

Table B-1 Construction Equipment Use

Equipment Type	Number of Units	Days on Site	Hours Per Day	Operating Hours
Excavators Composite	1	115	4	460
Rollers Composite	1	173	8	1,384
Rubber Tired Dozers Composite	1	115	8	920
Plate Compactors Composite	1	115	4	460
Trenchers Composite	1	58	8	464
Air Compressors	1	115	4	460
Cement & Mortar Mixers	1	115	6	690
Cranes	1	115	7	805
Generator Sets	1	115	4	460
Tractors/Loaders/Backhoes	1	230	7	1,610
Pavers Composite	1	58	8	464
Paving Equipment	2	58	8	928

Table B-2 Construction Equipment Emission Factors (lbs/hour)

Equipment	CO	NO _x	VOC	SO _x	PM ₁₀	PM _{2.5}	CO ₂
Excavators Composite	0.5828	1.3249	0.1695	0.0013	0.0727	0.0727	119.6
Rollers Composite	0.4341	0.8607	0.1328	0.0008	0.0601	0.0601	67.1
Rubber Tired Dozers Composite	1.5961	3.2672	0.3644	0.0025	0.1409	0.1409	239.1
Plate Compactors Composite	0.0263	0.0328	0.0052	0.0001	0.0021	0.0021	4.3
Trenchers Composite	0.5080	0.8237	0.1851	0.0007	0.0688	0.0688	58.7
Air Compressors	0.3782	0.7980	0.1232	0.0007	0.0563	0.0563	63.6
Cement and Mortar Mixers	0.0447	0.0658	0.0113	0.0001	0.0044	0.0044	7.2
Cranes	0.6011	1.6100	0.1778	0.0014	0.0715	0.0715	128.7
Generator Sets	0.3461	0.6980	0.1075	0.0007	0.0430	0.0430	61.0
Tractors/Loaders/Backhoes	0.4063	0.7746	0.1204	0.0008	0.0599	0.0599	66.8
Pavers Composite	0.5874	1.0796	0.1963	0.0009	0.0769	0.0769	77.9
Paving Equipment	0.0532	0.1061	0.0166	0.0002	0.0063	0.0063	12.6

Source: CARB 2011

Table B-3 Construction Equipment Emissions (Tons per Year)

Equipment	CO	NO _x	VOC	SO _x	PM ₁₀	PM _{2.5}	CO ₂
Excavators Composite	0.1341	0.3047	0.0390	0.0003	0.0167	0.0167	27.5037
Rollers Composite	0.3004	0.5956	0.0919	0.0005	0.0416	0.0416	46.4006
Rubber Tired Dozers Composite	0.7342	1.5029	0.1676	0.0011	0.0648	0.0648	109.9886
Plate Compactors Composite	0.0061	0.0076	0.0012	0.0000	0.0005	0.0005	0.9922
Trenchers Composite	0.1179	0.1911	0.0429	0.0002	0.0160	0.0160	13.6233
Air Compressors	0.0870	0.1835	0.0283	0.0002	0.0130	0.0130	14.6297
Cement and Mortar Mixers	0.0154	0.0227	0.0039	0.0000	0.0015	0.0015	2.5006
Cranes	0.2419	0.6480	0.0716	0.0006	0.0288	0.0288	51.7885
Generator Sets	0.0796	0.1605	0.0247	0.0002	0.0099	0.0099	14.0283
Tractors/Loaders/Backhoes	0.3271	0.6235	0.0969	0.0006	0.0482	0.0482	53.7791
Pavers Composite	0.1363	0.2505	0.0455	0.0002	0.0178	0.0178	18.0811
Paving Equipment	0.0247	0.0492	0.0077	0.0001	0.0029	0.0029	5.8593
Total	2.20	4.54	0.62	0.0040	0.26	0.26	359.18

Table B-4 Painting

VOC Content	0.84	lbs/gallon	
Coverage	400	sqft/gallon	
Emission Factor	0.0021	lbs/sqft	
Building/Facility	Wall Surface	VOC [lbs]	VOC [tpy]
All Buildings Combined	12,000	50.4	0.025
Total	12,000	50.4	0.03

Source: SCAQMD 1993

Table B-5 Delivery of Equipment and Supplies

Number of Deliveries	2						
Number of Trips	2						
Miles Per Trip	30						
Days of Construction	230						
Total Miles	27,600						
Pollutant	CO	NO _x	VOC	SO _x	PM ₁₀	PM _{2.5}	CO ₂
Emission Factor (lbs/mile)	0.0219	0.0237	0.0030	0.0000	0.0009	0.0007	2.7
Total Emissions (lbs)	605.8	654.5	82.6	0.7	23.6	20.4	75,056.4
Total Emissions (tpy)	0.30	0.33	0.04	0.0004	0.01	0.01	37.53

Source: CARB 2011

Table B-6 Surface Disturbance

TSP Emissions	124.8	lb/acre				
PM ₁₀ /TSP	0.45					
PM _{2.5} /PM ₁₀	0.15					
Period of Disturbance	30	days				
Capture Fraction	0.5					
Building/Facility	Area [acres]	TSP[lbs]	PM ₁₀ [lbs]	PM ₁₀ [tons]	PM _{2.5} [lbs]	PM _{2.5} [tons]
Demolition	0.6	2,325	1,046	0.52	78	0.04
Total	0.6	2,325	1,046	0.52	78	0.04

Sources: USEPA 1995 and USEPA 2005

Table B-7 Worker Commutes

Number of Workers	30						
Number of Trips	2						
Miles Per Trip	30						
Days of Construction	58						
Total Miles	104,400.00						
Pollutant	CO	NO _x	VOC	SO _x	PM ₁₀	PM _{2.5}	CO ₂
Emission Factor (lbs/mile)	0.0105	0.0011	0.0011	0.0000	0.0001	0.0001	1.1
Total Emissions (lbs)	1,101.3	115.1	112.7	1.1	8.9	5.5	114,791.2
Total Emissions (tpy)	0.55	0.06	0.06	0.0006	0.00	0.00	57.40

Source: CARB 2011

Table B-8 Total Construction Emissions (Tons per Year)

Activity/Source	CO	NO _x	VOC	SO _x	PM ₁₀	PM _{2.5}	CO ₂
Construction Equipment	2.20	4.54	0.62	0.0040	0.26	0.26	359.18
Painting	0.00	0.00	0.03	0.0000	0.00	0.00	0.00
Delivery of Equipment and Supplies	0.30	0.33	0.04	0.0004	0.01	0.01	37.53
Surface Disturbance	0.00	0.00	0.00	0.0000	0.52	0.04	0.00
Worker Commutes	0.55	0.06	0.06	0.0006	0.00	0.00	57.40
Total Construction Emissions	3.1	4.9	0.7	0.0	0.8	0.3	454.1

Table B-9 Boiler Emissions

Gross Area (net change)	5,000	sf				
Heating Requirements	99,000	btu/sf				
Total Annual Heat Required	5940	MMBTU				
Heating Value	150	MMBtu/1000 Gallons				
Total #2 Oil Used	39.6	10 ³ Gallons				
Pollutant	CO	NO_x	VOC	SO_x	PM₁₀	PM_{2.5}
Emission Factor (lb/1000 gal)	5	24	2.493	0.1	2	2
Total Emissions (tons)	0.01	0.04	<0.01	<0.01	<0.01	<0.01

1. Emission factors for all pollutants were obtained from U.S. EPA's AP-42, Section 1.3. Conservatively assume that PM₁₀ = PM.

2. Assumed sulfur concentration 1%

3. Heating requirements obtained from Commercial Buildings Energy Consumption Survey, DOE 2003

Table B-10 Solid Waste

Action	Debris generation	Debris from proposed action	Debris from proposed action	Quantity recycled	Total quantity landfill disposed of
	(lb/sq ft)	(lb)	(tons)	-50%	(tons)
Construction	4.4	52,800	26.4	13.2	13.2
Demolition	115	793,500	396.8	198.4	198.4
Total		846,300	423.2	211.6	211.6

Source: USEPA 1998

Appendix C
Economic Impact Forecast System (EIFS) Model

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Economic Impact Forecast System (EIFS) Model

Socioeconomic Impact Assessment

Socioeconomic impacts are linked through cause-and-effect relationships. Military payrolls and local procurement contribute to the economic base for the ROI. In this regard, the proposed project, including demolition of B1778 and construction of a new battalion headquarters facility on JBA would have a multiplier effect on the local and regional economy. With the proposed action, direct jobs would be created (e.g., construction jobs), generating new income and increasing personal spending. This spending generally creates secondary jobs, increases business volume, and increases revenues for schools and other social services.

The Economic Impact Forecast System

The U.S. Army, with the assistance of many academic and professional economists and regional scientists, developed EIFS to address the economic impacts of NEPA-requiring actions and to measure their significance. As a result of its designed applicability, and in the interest of uniformity, EIFS should be used in NEPA assessments. The entire system is designed for the scrutiny of a populace affected by the actions being studied. The algorithms in EIFS are simple and easy to understand, but still have firm, defensible bases in regional economic theory.

EIFS was developed under a joint project of the U.S. Army Corps of Engineers, the U.S. Army Environmental Policy Institute, and the Computer and Information Science Department of Clark Atlanta University. EIFS is implemented as an on-line system supported by the U.S. Army Corps of Engineers, Mobile District. The system is available to anyone with an approved user-id and password. U.S. Army Corps of Engineers staff is available to assist with the use of EIFS.

The databases in EIFS are national in scope and cover the approximately 3,700 counties, parishes, and independent cities that are recognized as reporting units by federal agencies. EIFS allows the user to define an economic ROI by identifying the counties, parishes, or cities to be analyzed. Once the ROI is defined, the system aggregates the data, calculates multipliers and other variables used in the various models in EIFS, and prompts the user for forecast input data.

The EIFS Model

The basis of the EIFS analytical capabilities is the calculation of multipliers that are used to estimate the impacts resulting from proposed project-related changes in local expenditures or employment. In calculating the multipliers, EIFS uses the economic base model approach, which relies on the ratio of total economic activity to basic economic activity. Basic, in this context, is defined as the production or employment engaged to supply goods and services outside the ROI or by federal activities (such as military installations and their employees). According to economic base theory, the ratio of total income to basic income is measurable (as the multiplier) and sufficiently stable so that future changes in economic activity can be forecast. This technique is especially appropriate for estimating aggregate impacts and makes the economic base model ideal for the EA and EIS process.

The multiplier is interpreted as the total impact on the economy of the region resulting from a unit change in its base sector; for example, a dollar increase in local expenditures due to an expansion of its military installation. EIFS estimates its multipliers using a location quotient approach based on the concentration of industries within the region relative to the industrial concentrations for the nation.

The user inputs into the model the data elements which describe the action: the change in expenditures, or dollar volume of the construction project(s); change in civilian or military employment; average annual income of affected civilian or military employees; the percent of civilians expected to relocate due to the proposed action; and the percent of military living on-post. Once these are entered into the EIFS model, a projection of changes in the local economy is provided. These are projected changes in sales volume, income, employment, and population.

These four indicator variables are used to measure and evaluate socioeconomic impacts. Sales volume is the direct and indirect change in local business activity and sales (total retail and wholesale trade sales, total selected service receipts, and value-added by manufacturing). Employment is the total change in local employment due to the proposed action, including not only the direct and secondary changes in local employment, but also those personnel who are initially affected by the military action. Income is the total change in local wages and salaries due to the proposed action, which includes the sum of the direct and indirect wages and salaries, plus the income of the civilian and military personnel affected by the proposed action. Population is the increase or decrease in the local population as a result of the proposed action.

The proposed action at JBA would require demolition of B1778, facility design, site preparation, and construction of a new battalion headquarters facility. The current estimated cost for the projects is about \$7,700,000, with a projected 1-year development period. This cost was entered in to the EIFS model as the change in regional expenditures. The proposed action would not change the number of military or civilian personnel assigned to JBA.

The Significance of Socioeconomic Impacts

Once model projections are obtained, the Rational Threshold Value (RTV) profile allows the user to evaluate the significance of the impacts. This analytical tool reviews the historical trends for the defined region and develops measures of local historical fluctuations in sales volume, income, employment, and population. These evaluations identify the positive and negative changes within which a project can affect the local economy without creating a significant impact. The greatest historical changes define the boundaries that provide a basis for comparing an action’s impact on the historical fluctuation in a particular area. Specifically, EIFS sets the boundaries by multiplying the maximum historical deviation of the following variables:

		<i>Increase</i>	<i>Decrease</i>
Sales Volume	X	100%	75%
Income	X	100%	67%
Employment	X	100%	67%
Population	X	100%	50%

These boundaries determine the amount of change that will affect an area. The percentage allowances are arbitrary, but sensible. The maximum positive historical fluctuation is allowed with expansion because economic growth is beneficial. While cases of damaging economic growth have been cited, and although the zero-growth concept is being accepted by many local planning groups, military base reductions and closures generally are more injurious to local economics than are expansion.

The major strengths of the RTV are its specificity to the region under analysis and its basis on actual historical data for the region. The EIFS impact model, in combination with the RTV, has proven successful in addressing perceived socioeconomic impacts. The EIFS model and the RTV technique for measuring the intensity of impacts have been reviewed by economic experts and have been deemed theoretically sound.

The following are the EIFS input and output data for the proposed action and the RTV values for the ROI.

EIFS REPORT

PROJECT NAME

Joint Base Andrews Battalion HQ EA

STUDY AREA

Prince George's County, MD

FORECAST INPUT

Change In Local Expenditures	\$7,700,000
Change In Civilian Employment	0
Average Income of Affected Civilian	\$0
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	2.83	
Income Multiplier	2.83	
Sales Volume – Direct	\$7,700,000	
Sales Volume – Induced	\$14,091,000	
Sales Volume – Total	\$21,791,000	0.07%
Income – Direct	\$1,407,896	
Income - Induced	\$2,576,449	
Income – Total (place of work)	\$3,984,345	0.02%
Employment – Direct	32	
Employment – Induced	59	
Employment – Total	92	0.02%
Local Population	0	
Local Off-base Population	0	0%

RTV SUMMARY

	Sales Volume	Income	Employment	Population
Positive RTV	13.74%	11.72%	4.59%	3.30%
Negative RTV	-5.32%	-4.48%	-4.17%	-0.85%

RTV DETAILED**SALES VOLUME**

Year	Value	Adj Value	Change	Deviation	%Deviation
1969	1311821	5732658	0	0	0
1970	1486616	6139724	407067	153154	2.49
1971	1666838	6600679	460954	207041	3.14
1972	1883086	7212219	611541	357628	4.96
1973	2110529	7619009	406790	152877	2.01
1974	2307655	7499879	-119131	-373044	-4.97
1975	2453531	7311522	-188356	-442269	-6.05
1976	2699624	7612939	301417	47504	0.62
1977	2935901	7750779	137839	-116074	-1.5
1978	3254441	8005925	255146	1233	0.02
1979	3631494	8025602	19677	-234236	-2.92
1980	4028557	7815401	-210201	-464114	-5.94
1981	4430916	7798412	-16989	-270902	-3.47
1982	4577146	7598062	-200350	-454263	-5.98
1983	4970975	8003270	405208	151295	1.89
1984	5600643	8624990	621720	367807	4.26
1985	6376749	9501356	876366	622453	6.55
1986	7047456	10289286	787930	534017	5.19
1987	7885395	12222362	1933076	1679163	13.74
1988	8587537	11679050	-543311	-797224	-6.83
1989	9197479	11864748	185697	-68216	-0.57
1990	10021287	12326183	461436	207523	1.68
1991	9955098	11747015	-579168	-833081	-7.09
1992	10238359	11671729	-75286	-329199	-2.82
1993	10633391	11803064	131335	-122578	-1.04
1994	11010346	11891174	88110	-165803	-1.39
1995	11317030	11882881	-8293	-262206	-2.21
1996	11880862	12118479	235598	-18315	-0.15
1997	12781994	12781994	663515	409602	3.2
1998	13284829	13019133	237139	-16774	-0.13
1999	13818444	13265706	246573	-7340	-0.06
2000	14900935	13857870	592164	338251	2.44

INCOME

Year	Value	Adj_Value	Change	Deviation	%Deviation
1969	2711417	11848892	0	0	0
1970	3132753	12938270	1089378	755077	5.84
1971	3439625	13620915	682645	348344	2.56
1972	3741997	14331848	710933	376632	2.63
1973	4069014	14689140	357292	22991	0.16
1974	4399110	14297108	-392033	-726334	-5.08
1975	4719196	14063204	-233903	-568204	-4.04
1976	5083661	14335924	272720	-61581	-0.43
1977	5448505	14384054	48130	-286171	-1.99
1978	5881297	14467991	83937	-250364	-1.73
1979	6417356	14182357	-285634	-619935	-4.37
1980	7049501	13676032	-506325	-840626	-6.15
1981	7818331	13760262	84230	-250071	-1.82
1982	8432835	13998506	238243	-96058	-0.69
1983	9096525	14645405	646900	312599	2.13
1984	10119271	15583677	938272	603971	3.88
1985	11083235	16514020	930343	596042	3.61
1986	11916961	17398764	884743	550442	3.16
1987	12959671	20087489	2688726	2354425	11.72
1988	14076285	19143748	-943742	-1278043	-6.68
1989	15176568	19577772	434024	99723	0.51
1990	16172648	19892357	314585	-19716	-0.1
1991	16716212	19725129	-167228	-501529	-2.54
1992	17356581	19786502	61373	-272928	-1.38
1993	18039887	20024275	237773	-96528	-0.48
1994	18746733	20246472	222198	-112103	-0.55
1995	19165209	20123469	-123004	-457305	-2.27
1996	19671905	20065343	-58126	-392427	-1.96
1997	20616650	20616650	551307	217006	1.05
1998	21712782	21278527	661877	327576	1.54
1999	22554116	21651951	373424	39123	0.18
2000	24243561	22546512	894561	560260	2.48

EMPLOYMENT

Year	Value	Change	Deviation	%Deviation
1969	190249	0	0	0
1970	198932	8683	2018	1.01
1971	208284	9352	2687	1.29
1972	221176	12892	6227	2.82
1973	229967	8791	2126	0.92
1974	232606	2639	-4026	-1.73
1975	232320	-286	-6951	-2.99
1976	234526	2206	-4459	-1.9
1977	239433	4907	-1758	-0.73
1978	250626	11193	4528	1.81
1979	257679	7053	388	0.15
1980	264693	7014	349	0.13
1981	267346	2653	-4012	-1.5
1982	261973	-5373	-12038	-4.6
1983	271284	9311	2646	0.98
1984	287076	15792	9127	3.18
1985	307866	20790	14125	4.59
1986	324453	16587	9922	3.06
1987	340835	16382	9717	2.85
1988	356225	15390	8725	2.45
1989	366294	10069	3404	0.93
1990	378979	12685	6020	1.59
1991	363077	-15902	-22567	-6.22
1992	356169	-6908	-13573	-3.81
1993	359769	3600	-3065	-0.85
1994	364674	4905	-1760	-0.48
1995	369723	5049	-1616	-0.44
1996	378225	8502	1837	0.49
1997	387407	9182	2517	0.65
1998	390484	3077	-3588	-0.92
1999	395371	4887	-1778	-0.45
2000	403532	8161	1496	0.37

POPULATION

Year	Value	Change	Deviation	%Deviation
1969	639024	0	0	0
1970	666136	27112	21969	3.3
1971	687757	21621	16478	2.4
1972	697949	10192	5049	0.72
1973	693012	-4937	-10080	-1.45
1974	689495	-3517	-8660	-1.26
1975	683044	-6451	-11594	-1.7
1976	680269	-2775	-7918	-1.16
1977	674922	-5347	-10490	-1.55
1978	671171	-3751	-8894	-1.33
1979	665610	-5561	-10704	-1.61
1980	666369	759	-4384	-0.66
1981	670209	3840	-1303	-0.19
1982	671811	1602	-3541	-0.53
1983	674430	2619	-2524	-0.37
1984	679390	4960	-183	-0.03
1985	683487	4097	-1046	-0.15
1986	688863	5376	233	0.03
1987	694845	5982	839	0.12
1988	708095	13250	8107	1.14
1989	719550	11455	6312	0.88
1990	731076	11526	6383	0.87
1991	743058	11982	6839	0.92
1992	749080	6022	879	0.12
1993	753273	4193	-950	-0.13
1994	762733	9460	4317	0.57
1995	770861	8128	2985	0.39
1996	779187	8326	3183	0.41
1997	780666	1479	-3664	-0.47
1998	789037	8371	3228	0.41
1999	795048	6011	868	0.11
2000	803612	8564	3421	0.43

***** End of Report *****

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Appendix D
Public Review Comments and Responses

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Comment Response Matrix – Agency & Public Review

Draft Environmental Assessment for the Construction and Operation of a Battalion Headquarters for the U.S. Army Priority Air Transport (Sept 2012)

#	Location		Comment	Reviewer	Tetra Tech Response
	Page	Line			
0	1-5	17	1.3.1	AMH	
1				MDE	Comment noted. All permit requirements, federal and state, will be complied with during project implementation.
2				MDE	Comment noted. JBA encourages all Service members and employees to use carpools and public transport to the maximum extent possible. However, modifying how USAPAT personnel arrive at JBA or circulate at the base is not part of the proposed action.
3				MDE	Comment noted. The Air Quality section addresses general conformity.

Comment Response Matrix – Agency & Public Review

**Draft Environmental Assessment for the
Construction and Operation of a Battalion Headquarters for the
U.S. Army Priority Air Transport (Sept 2012)**

#	Location		Comment	Reviewer	Tetra Tech Response
	Page	Line Section			
4			Any above ground or underground petroleum storage tanks, which may be utilized, must be installed and maintained in accordance with applicable State and federal laws and regulations. Underground storage tanks must be registered and the installation must be conducted and performed by a contractor certified to install underground storage tanks by the Land Management Administration in accordance with COMAR 26.10. Contact the Oil Control Program at (410) 537-3442 for additional information.	MDE	Comment noted. It is not anticipated that USTs or ASTs will be used for the project, but all applicable regulatory requirements will be met.
5			If the proposed project involves demolition – Any above ground or underground petroleum storage tanks that may be on site must have contents and tanks along with any contamination removed. Please contact the Oil Control Program at (410) 537-3442 for additional information.	MDE	Comment noted. It is not anticipated that USTs or ASTs will be used for the project, but all applicable regulatory requirements will be met.
6			Any solid waste including construction, demolition and land clearing debris, generated from the subject project, must be properly disposed of at a permitted solid waste acceptance facility, or recycled if possible. Contact the Solid Waste Program at (410) 537-3315 for additional information regarding solid waste activities and contact the Waste Diversion and Utilization Program at (410) 537-3314 for additional information regarding recycling activities.	MDE	Comment noted. All applicable regulatory requirements will be met during project implementation.

Comment Response Matrix – Agency & Public Review

Draft Environmental Assessment for the Construction and Operation of a Battalion Headquarters for the U.S. Army Priority Air Transport (Sept 2012)

#	Location		Comment	Reviewer	Tetra Tech Response
	Page	Line Section			
7			The Waste Diversion and Utilization Program should be contacted directly at (410) 537-3314 by those facilities which generate or propose to generate or handle hazardous wastes to ensure these activities are being conducted in compliance with applicable State and federal laws and regulations. The Program should also be contacted prior to construction activities to ensure that the treatment, storage or disposal of hazardous wastes and low-level radioactive wastes at the facility will be conducted in compliance with applicable State and federal laws and regulations.	MDE	Comment noted. All applicable regulatory requirements will be met during project implementation.
8			Any contract specifying “lead paint abatement” must comply with Code of Maryland Regulations (COMAR) 26.16.01 - Accreditation and Training for Lead Paint Abatement Services. If a property was built before 1950 and will be used as rental housing, then compliance with COMAR 26.16.02 - Reduction of Lead Risk in Housing; and Environment Article Title 6, Subtitle 8, is required. Additional guidance regarding projects where lead paint may be encountered can be obtained by contacting the Environmental Lead Division at (410) 537-3825.	MDE	Comment noted. All applicable regulatory requirements will be met during project implementation.
9			Planners should be aware of existing water quality impairments identified on Maryland's 303(d) list. The Project is situated in the Piscataway Creek watershed, identified by the MD 8-digit code 02140203 which is currently impaired by several substances and subject to regulations regarding the Clean Water Act.	MDE SSA	Comment noted. JBA and its contractors will abide by MD regulations and permits for erosion and sediment control from construction sites and an approved stormwater control plan for the facility. No effects on the Piscataway Creek watershed would be expected.
10			Development and implementation of any Plan should take into account consistency with TMDLs developed for the impaired waterbodies referenced above. Decisions made prior to the development of a TMDL should strive to ensure no net increase of impairing substances.	MDE SSA	Comment noted. Implementation of the project is not expected to affect consistency with a TMDL.

Comment Response Matrix – Agency & Public Review

Draft Environmental Assessment for the Construction and Operation of a Battalion Headquarters for the U.S. Army Priority Air Transport (Sept 2012)

#	Location		Comment	Reviewer	Tetra Tech Response
	Page	Line Section			
11			Piscataway Creek 1, which is located within the vicinity of the Project, has been designated as a Tier II stream. Planners should be aware of legal obligations related to Tier II waters described in the Code of Maryland Regulations (COMAR) 26.08.02.04 with respect to current and future land use plans.	MDE SSA	Comment noted. The project is not anticipated to adversely affect water quality in the Piscataway Creek.
12			Facilities should be aware of reductions and associated implementation required by WIPs or FIPs.	MDE SSA	Comment noted. The project is not anticipated to adversely affect water quality in the Chesapeake Bay.
13			The project should consider all Maryland Stormwater Management Controls. Site Designs should consider all Environmental Site Design to the Maximum Extent Practicable and "Green Building" Alternatives. Designs that reduce impervious surface and BMPs that increase runoff infiltration are highly encouraged.	MDE SSA	Comment noted. All applicable regulatory requirements will be met during project implementation.
14		1.8	Please include the National Capital Planning Act of 1952 (40 USC § 8722 (b) (1)) as a requirement as well. This is because federal projects to be constructed on federal property in the National Capital Region are required to be submitted to the National Capital Planning Commission. In addition, please include the Energy Independence and Security Act (EISA) of 2007 as an applicable regulation.	CH, NCPC	The two acts were added to section 1.8.

Comment Response Matrix – Agency & Public Review
**Draft Environmental Assessment for the
 Construction and Operation of a Battalion Headquarters for the
 U.S. Army Priority Air Transport (Sept 2012)**

#	Location		Comment	Reviewer	Tetra Tech Response
	Page	Line			
15			2.2	CH, NCPC	<p>The UFC for minimum standoff distance of 82', which was in effect when the site plans for the three sites were proposed, was superseded by a new UFC in February 2012. The new standoff distance applicable to the USAPAT facility can be met on any of three sites. (The minimum standoff distance was revised from 82' to 18'.) References to sites meeting or not meeting the UFC were deleted.</p> <p>USAPAT staff will be walking regularly between the hangar and the HQ building. Close proximity is considered a necessity of site location. This has been noted in the EA; see section 2.1.</p>
16			2.2	CH, NCPC	<p>Noted. The phrasing of '50 parking space requirement' was revised to note that this is a maximum allowable number of spaces based on the building occupancy.</p>

Comment Response Matrix – Agency & Public Review

Draft Environmental Assessment for the Construction and Operation of a Battalion Headquarters for the U.S. Army Priority Air Transport (Sept 2012)

#	Location		Comment	Reviewer	Tetra Tech Response
	Page	Line Section			
17		4.9	Finally, please include a discussion of what the policy is for the replacement of existing trees that are removed or the introduction of new trees that are associated with a construction project on the installation. Also include if this policy will be met for each of the alternatives included in the draft EA.	CH, NCPC	Discussion of JBA tree replacement policy was added; see section 4.9.
18		3.5	The draft EA does not include the Energy Independence Security Act (EISA), Section 438 and Executive Order 13508 (Chesapeake Bay Protection and Restoration). Please include the a description of how this project will adhere to the requirements detailed in EISA, Section 438 and Executive Order 13508 in the final EA.	CH, NCPC	EISA and discussion was added; see sections 4.5 and 4.6. EO 13508 was added; see sections 1.8 and 4.5.
19		3.7	Lastly, the draft EA does not include a description of the use or frequency of installation shuttles and this may be an important factor in choosing a location for this building that is farther from the USAMAP Hangar than the preferred site. The shuttles could be used by the staff located in the building to travel to the hangar. Also, if proximity to the hangar is the most important factor please note this in the draft EA and provide an explanation as to why this is important.	CH, NCPC	Per JBA Vehicle Operations (301-981-4661, 11/1/12), the JBA shuttle no longer runs. The EA now notes this in section 3.7.



Maryland Department of Planning

Richard Eberhart Hall
Secretary

Matthew J. Power
Deputy Secretary

Martin O'Malley
Governor

Anthony G. Brown
Lt. Governor

September 20, 2012

Ms. Anne Hodges
Environmental Planner
Department of the Air Force
11 CES/CEAO
3466 North Carolina Avenue
Joint Base Andrews, MD 20762

STATE CLEARINGHOUSE REVIEW PROCESS

State Application Identifier: MD20120919-0683

Reviewer Comments Due By: October 12, 2012

Project Description: Draft Environmental Assessment (EA): Construction and Operation of a Battalion Headquarters for the U.S. Army Priority Air Transport at Joint Base Andrews-Naval Air Facility Washington, Prince George's County, Maryland

Project Location: County(ies) of Prince George's

Clearinghouse Contact: Sophia Richardson

Dear Ms. Hodges:

Thank you for submitting your project for intergovernmental review. Participation in the Maryland Intergovernmental Review and Coordination (MIRC) process helps ensure project consistency with plans, programs, and objectives of State agencies and local governments.

The following agencies and/or jurisdictions have been forwarded a copy of your project for their review: the Maryland Department(s) of Transportation, the Environment, Natural Resources; the Maryland Office(s) of Maryland Military Department; the County(ies) of Prince George's; the Regional Agency(ies) of Maryland-National Capital Park and Planning Commission in Prince George's; and the Maryland Department of Planning; including Maryland Historical Trust.

If you need assistance or have questions, contact the State Clearinghouse staff noted above at 410-767-4490 or through e-mail at srichardson@mdp.state.md.us.

Sincerely,

[Handwritten signature of Linda C. Janey]

Linda C. Janey, J.D., Assistant Secretary

P.S. Great News!! Your project may be eligible to be "FastTracked" through the State permitting processes. For more information, go to: http://easy.maryland.gov/wordpress/fasttrack/.

LCJ:SR

Enclosure(s)

cc: Melinda Gretsinger - MDOT
Amanda Degen - MDE
Peter Conrad - MDPL

Jay Mangalvedhe - MNCPPCP
Beth Cole - MHT
Beverly Warfield - PGEO

Greg Golden - DNR

Lawrence Leone - MILT

0683_NDC.NEW.doc



Good afternoon Ms. Hodges,

We processed **MD20120919-0683 - Draft Environmental Assessment (EA): Construction and Operation of a Battalion Headquarters for the U.S. Army Priority Air Transport at Joint Base Andrews-Naval Air Facility Washington, Prince George's County, Maryland** as a Direct Comment. With Direct Comment projects we ask the reviewing agencies to respond directly to the applicant. Therefore, we do not issue a formal Review and Recommendation letter with these projects.

In regard to comments received:

1. Maryland Department of Planning:

- ❖ **C1** - It is Consistent with our plans, programs, and objectives
- ❖ **C2** - It is **Consistent** with the policies contained in **Executive Order 01.01.1992.27** (Maryland Economic Growth, Resource Protection, and Planning Act of 1992), **Executive Order 01.01.1998.04** (Smart Growth and Neighborhood Conservation Policy), **and** our plans, programs, and objectives.
- ❖ **C7** - It is consistent with the requirements of State Finance and Procurement Article 5-7B-02; 03; 04 and 05 Smart Growth and Neighborhood Conservation (Priority Funding Areas).

2. Maryland Department of Natural Resources:

- ❖ **R1- GENERALLY CONSISTENT WITH QUALIFYING COMMENTS:** It is generally Consistent with our plans, programs and objectives, but the attached qualifying comment is submitted for consideration.
- ❖ To support the goal of sustainability, please consider ground-source heat pumps, solar thermal and PV systems, energy efficient appliances, doors and windows, and passive solar gain to provide comfort and reliable power to personnel with minimum ecological impact. Green roofs, permeable pavement, planting of trees and other vegetation proximate to the building (such as rain gardens) could help reduce both "heat island effect" and help with onsite stormwater management. All of the above also provide opportunities for green jobs and training.

3. Maryland Department of the Environment:

- ❖ **R1 - GENERALLY CONSISTENT WITH QUALIFYING COMMENTS:** It is generally Consistent with our plans, programs and objectives, but the attached qualifying comment is submitted for consideration.
- ❖ **See attached**

4. Maryland Department of Transportation:

- ❖ **R1- GENERALLY CONSISTENT WITH QUALIFYING COMMENTS:** It is generally Consistent with our plans, programs and objectives, but the attached qualifying comment is submitted for consideration.

We have reviewed the materials and we offer the following comments:

- ❖ There are currently three SHA major projects proposed located in the vicinity of the three proposed locations for the USAPAT Battalion Headquarters on the Joint Base Andrews Naval Air Facility and they are; the I-95/I-495 Capital Beltway Widening, the ramp and intersection improvements at MD 337 at the I-95/I-495 Off-Ramp, and the intersection improvements at MD 337 and MD 218. One proposed site for this development is on Arnold Drive, a local road. The other two proposed sites are located on D Street. Because these sites do not access State roads including I-95/I-495, MD 337, and MD 218 they pose no inordinate degree of impact to the three proposed major projects.
- ❖ Additionally, the installation of this development may incur some additional traffic for roadways in the immediate area. However, it is not foreseeable (based on the small number of personnel that is going to utilize the facility) that the new facility will pose a significant impact on the local roadway system.

If you have any questions or concerns, please call or send an email.

David Rodgers
Assistant Regional Planner, Prince George's County
410-545-5670
drodgers1@sha.state.md.us

5. Maryland Historical Trust:

- ❖ **C1** - It is **Consistent** with our plans, programs, and objectives
- ❖ The project will have "no adverse effects" on historic properties.

6. Prince George's County:

- ❖ **C5** - It is **Consistent** with our plans, programs, and objectives.
- ❖ The Environmental Assessment for the Construction and Operation of a Battalion Headquarters for the U.S. Army Priority Air Transport is consistent with County programs. The site selected as the preferred option appears to have the least impact. The land use of the preferred site is maintained lawn and trees. The site is surrounded by development. Impact would be most significant during the construction process.

7. Maryland National Capital Parks & Planning Commission:

- ❖ **C1** - It is **Consistent** with our plans, programs, and objectives.
- ❖ The proposed work is not subject to local law because it is a federal project on land of the United States federal government. The environmental requirements will be addressed through state and federal reviews.

8. Maryland National Capital Parks & Planning Commission:

- ❖ No comment was submitted

Please be assured that all MIRC requirements were met in accordance with Code of Maryland Regulations (COMAR 34.02.01.04-.06).

Thanks Sophia



MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Boulevard • Baltimore, Maryland 21230

410-537-3000 • 1-800-633-6101 • <http://www.mde.state.md.us>

Martin O'Malley
Governor

Robert M. Summers, Ph.D
Secretary

Anthony G. Brown
Lieutenant Governor

October 10, 2012

Ms. Anne Hodges
Environmental Planner
Department of the Air Force
11 CES/CEAO
3466 North Caroline Avenue
Joint Base Andrews, MD 20762

RE: State Application Identifier: MD20120919-0683
Project: Draft Environmental Assessment (EA): Construction and Operation of a Battalion Headquarters for the U.S. Army Priority Air Transport at Joint Base Andrews-Naval Air Facility Washington, Prince George's County, Maryland

Dear Ms. Hodges:

Thank you for the opportunity to review the above referenced project. The document was circulated throughout the Maryland Department of the Environment (MDE) for review, and the following comments are offered for your consideration.

1. If boilers or other equipment capable of producing emissions are installed as a result of this project, the applicant is requested to obtain a permit to construct from MDE's Air and Radiation Management Administration for this equipment, unless the applicant determines that a permit for this equipment is not required under State regulations pertaining to "Permits, Approvals, and Registration" (COMAR 26.11.02.). A review for toxic air pollutants should be performed. Please contact the New Source Permits Division, Air and Radiation Management Administration at (410) 537-3230 to learn about the State's requirements and the permitting processes for such devices.
2. The applicant is encouraged to plan for the maximum utilization of carpools and public transit by employees providing preferential carpool/vanpool parking and bus shelters for commuters that use these methods of transportation. This will minimize the adverse impact of additional traffic generated by the proposed project. Please contact the Mobile Sources Program, Air and Radiation Management Administration at (410) 537-3270 for additional information.
3. If a project receives federal funding, approvals and/or permits, and will be located in a nonattainment area or maintenance area for ozone or carbon monoxide, the applicant should determine whether emissions from the project will exceed the thresholds identified in the federal rule on general conformity. If the project emissions will be greater than 25 tons per year, contact James Wilkinson, Air and Radiation Management Administration, at (410) 537-3245 for further information regarding threshold limits.
4. Any above ground or underground petroleum storage tanks, which may be utilized, must be installed and

maintained in accordance with applicable State and federal laws and regulations. Underground storage tanks must be registered and the installation must be conducted and performed by a contractor certified to install underground storage tanks by the Land Management Administration in accordance with COMAR 26.10. Contact the Oil Control Program at (410) 537-3442 for additional information.

5. If the proposed project involves demolition – Any above ground or underground petroleum storage tanks that may be on site must have contents and tanks along with any contamination removed. Please contact the Oil Control Program at (410) 537-3442 for additional information.
6. Any solid waste including construction, demolition and land clearing debris, generated from the subject project, must be properly disposed of at a permitted solid waste acceptance facility, or recycled if possible. Contact the Solid Waste Program at (410) 537-3315 for additional information regarding solid waste activities and contact the Waste Diversion and Utilization Program at (410) 537-3314 for additional information regarding recycling activities.
7. The Waste Diversion and Utilization Program should be contacted directly at (410) 537-3314 by those facilities which generate or propose to generate or handle hazardous wastes to ensure these activities are being conducted in compliance with applicable State and federal laws and regulations. The Program should also be contacted prior to construction activities to ensure that the treatment, storage or disposal of hazardous wastes and low-level radioactive wastes at the facility will be conducted in compliance with applicable State and federal laws and regulations.
8. Any contract specifying “lead paint abatement” must comply with Code of Maryland Regulations (COMAR) 26.16.01 - Accreditation and Training for Lead Paint Abatement Services. If a property was built before 1950 and will be used as rental housing, then compliance with COMAR 26.16.02 - Reduction of Lead Risk in Housing; and Environment Article Title 6, Subtitle 8, is required. Additional guidance regarding projects where lead paint may be encountered can be obtained by contacting the Environmental Lead Division at (410) 537-3825.

Please see the enclosure for additional comments provided by the Science Services Administration. Again, thank you for giving MDE the opportunity to review this project. If you have any questions or need additional information, please feel free to call me at (410) 537-4120.

Sincerely,

Amanda R. Degen

Amanda R. Degen
MDE Clearinghouse Coordinator
Office of Communications

cc: Sophia Richardson, State Clearinghouse

Draft EA: USAPAT Battalion Headquarters Joint Base Andrews

Maryland Department of the Environment - Science Services Administration

**REVIEW FINDING: R1 Consistent with Qualifying Comments
(MD2012 0919-0683)**

The following additional comments are intended to alert interested parties to issues regarding water quality standards. The comments address:

A. Water Quality Impairments: Section 303(d) of the federal Clean Water Act requires the State to identify impaired waters and establish Total Maximum Daily Loads (TMDLs) for the substances causing the impairments. A TMDL is the maximum amount of a substance that can be assimilated by a waterbody such that it still meets water quality standards.

Planners should be aware of existing water quality impairments identified on Maryland's 303(d) list. The Project is situated in the Piscataway Creek watershed, identified by the MD 8-digit code 02140203 which is currently impaired by several substances and subject to regulations regarding the Clean Water Act.

Planners may find a list of nearby impaired waters by entering the 8-digit basin code into an on-line database linked to the following URL:
<http://www.mde.state.md.us/programs/Water/TMDL/Integrated303dReports/Pages/303d.aspx>.

This list is updated every even calendar year. Planners should review this list periodically to help ensure that local decisions consider water quality protection and restoration needs. **Briefly, the current impairments that are relevant to the Project include the following:**

Piscataway Creek (02140203):

Nutrients:	Tidal. A TMDL is pending development.
Sediments:	Tidal. A TMDL is pending development.
Bacteria:	Non-tidal. A TMDL has been written and approved by EPA.
Biological:	Non-tidal. A TMDL is pending development.

B. TMDLs: Development and implementation of any Plan should take into account consistency with TMDLs developed for the impaired waterbodies referenced above. Decisions made prior to the development of a TMDL should strive to ensure no net increase of impairing substances. TMDLs are made available on an updated basis at the following web site:

<http://www.mde.state.md.us/programs/Water/TMDL/CurrentStatus/Pages/Programs/WaterPrograms/TMDL/Summittals/index.aspx>

Special protections for high-quality waters in the local vicinity, which are identified pursuant to Maryland's anti-degradation policy;

C. Anti-degradation of Water Quality: Maryland requires special protections for waters of very high quality (Tier II waters). The policies and procedures that govern these special waters are commonly called "anti-degradation policies." This policy states that "proposed amendments to county plans or discharge permits for discharge to Tier II waters that will result in a new, or an increased, permitted annual discharge of pollutants and a potential impact to water quality, shall evaluate alternatives to eliminate or reduce discharges or impacts." These permitted annual discharges are not just traditional Point Sources, it can include all discharges such as Stormwater.

Piscataway Creek 1, which is located within the vicinity of the Project, has been designated as a Tier II stream. (See attached map)

Planners should be aware of legal obligations related to Tier II waters described in the Code of Maryland Regulations (COMAR) 26.08.02.04 with respect to current and future land use plans. Information on Tier II waters can be obtained online at: <http://www.dsd.state.md.us/comar/getfile.aspx?file=26.08.02.04.htm> and policy implementation procedures are located at <http://www.dsd.state.md.us/comar/getfile.aspx?file=26.08.02.04-1.htm>

Planners should also note that since the Code of Maryland Regulations is subject to periodic updates. A list of Tier II waters pending Departmental listing in COMAR can be found, with a discussion and maps for each county, at the following website:

<http://www.mde.state.md.us/programs/researchcenter/EnvironmentalData/Pages/researchcenter/data/waterqualitystandards/antidegradation/index.aspx>

ADDITIONAL COMMENTS

Chesapeake Bay TMDL

With the completion of the Chesapeake Bay TMDL, the Chesapeake Bay Program Office (CBPO) will be able to provide loading data at a more refined scale than in the past. MDE will be able to use the CBPO data to estimate pollution allocations at the jurisdictional level (which will include Federal Facilities) to provide allocations to the Facilities. These allocations, both Wasteload (WLA) and Load Allocation (LA) could call for a reduction in both Point Sources and Nonpoint Sources. **Facilities should be aware of reductions and associated implementation required by WIPs or FIPs.**

Stormwater

The project should consider all Maryland Stormwater Management Controls. Site Designs should consider all Environmental Site Design to the Maximum Extent Practicable and "Green Building" Alternatives. Designs that reduce impervious surface and BMPs that increase runoff infiltration are highly encouraged.

Further Information:

<http://www.mde.state.md.us/programs/Water/StormwaterManagementProgram/Pages/Programs/WaterPrograms/SedimentandStormwater/swm2007.aspx>

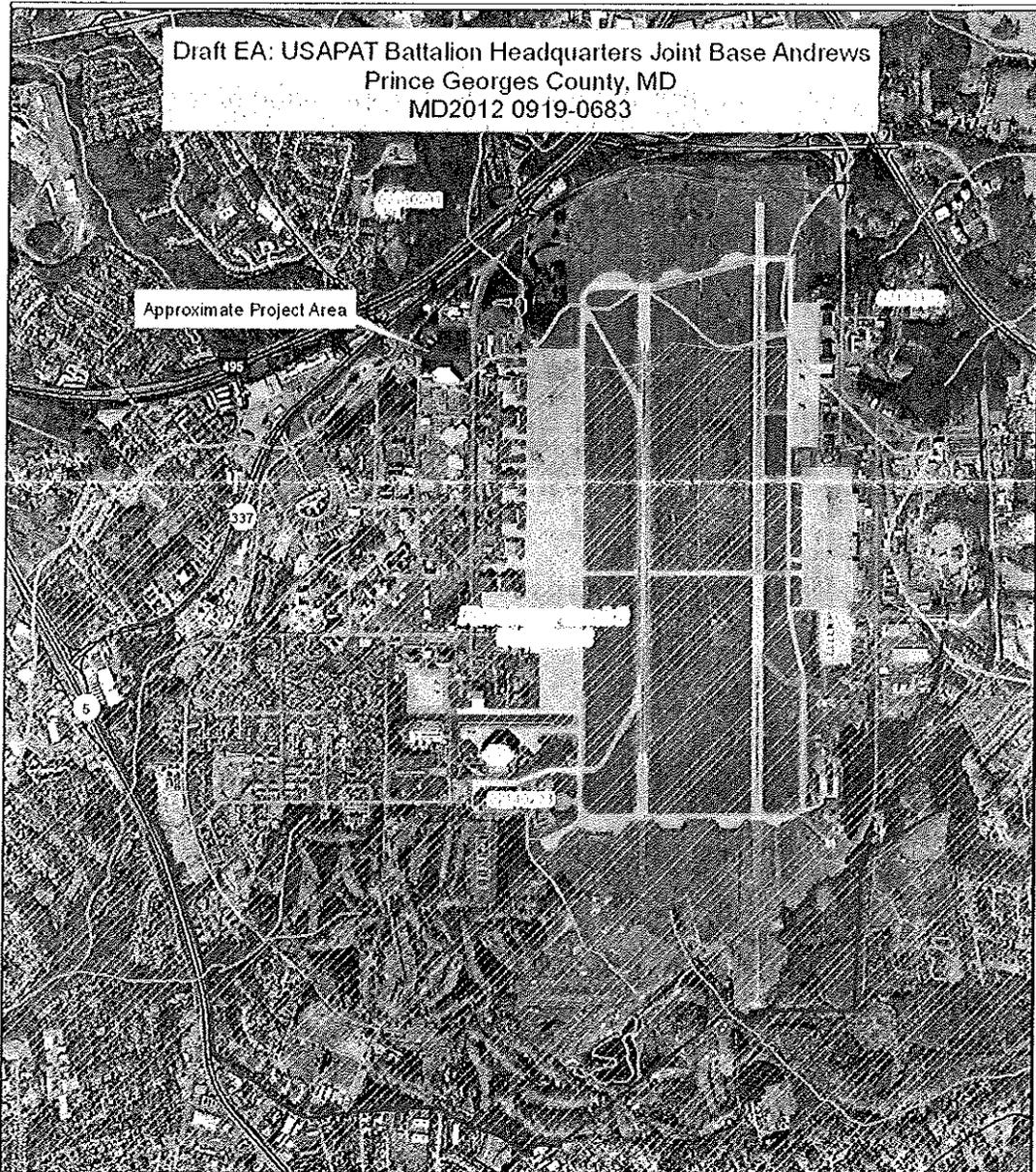
Environmental Site Design (Chapter 5):

<http://www.mde.state.md.us/programs/Water/StormwaterManagementProgram/MarylandStormwaterDesignManual/Documents/www.mde.state.md.us/assets/document/chapter5.pdf>

Redevelopment Regulations:

<http://www.dsd.state.md.us/comar/comarhtml/26/26.17.02.05.htm>

Draft EA: USAPAT Battalion Headquarters Joint Base Andrews
 Prince Georges County, MD
 MD2012 0919-0683



Legend

- Streams
- Andrews Airforce Base
- 8-digit Watershed
- Major Roads
- MD High Quality Waters

0 375 1750 3500 Feet

0 495 610 1220 Meters



Data Sources:

- Streams - State Highway Administration
- Major Roads - State Highway Administration
- Watersheds - 8-digit - MD Dept. of the Environment
- Municipal Boundaries - State Highway Administration



Map Date: 05/04/11 Drawn By: MDC/NSA

October 12, 2012

MEMORANDUM

TO: Christine Osei, Project Manager, Mandatory Referral Process

VIA: Jacqueline Philson, Planning Supervisor, Research Section, Countywide Planning Division 

FROM: Theodore W. Kowaluk, Senior Planner 

SUBJECT: Joint Base Andrews Battalion Headquarters

Staff has reviewed the Joint Base Andrews Battalion Headquarters Environmental Assessment Review and agrees with the assessment's conclusion that, "Short-term minor beneficial economic effects on the regional economy would be expected from implementing the proposed action."

From an economic development stand point the construction of the Battalion Headquarters will have a minimal albeit positive impact on the county. Staff is available to answer any questions or concerns you may have with regard to this memorandum.



THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

Prince George's County Planning Department
Historic Preservation Section

(301) 952-3680
www.mncppc.org

DATE: October 17, 2012

TO: Christine A. Osei, Mandatory Referral Project Manager
Special Projects Section
Countywide Planning Division

FROM: Howard Berger, Supervisor ^{KB}
Jennifer Stabler, Archeology Planner Coordinator ^{JS}
Historic Preservation Section
Countywide Planning Division

RE: Mandatory Referral MR-12001A: Joint Base Andrews Battalion Headquarters
Environmental Assessment Review

Staff of the Historic Preservation Section has reviewed the above-cited mandatory referral and finds that the proposed construction of new small-battalion headquarters facility and the demolition and disposal of Building 1778 will have no effect on identified historic or archeological resources within the subject property.

Staff would also like to note that the proposed project does not include any impacts to any cultural or historic resources within Prince George's County. JBA includes two properties designated as Prince George's County historic sites: 77-001-Forest Grove Methodist Church and Cemetery (Chapel 2), and 77-014-Belle Chance and Cemetery. Neither of these properties will be affected by the proposed construction of a new small-battalion headquarters facility and the demolition and disposal of Building 1778.



Countywide Planning Division
Environmental Planning Section

14741 Governor Oden Bowie Drive
Upper Marlboro, Maryland 20772
TTY: (301) 952-4366
www.mncppc.org/pgco

October 14, 2012

TO: Christine Osei, Planner Coordinator, Special Projects Section
 VIA: Katina Shoulars, Supervisor, Environmental Planning Section
 FROM: Kim Finch, Planner Coordinator, Environmental Planning Section
 SUBJECT: MR-12001A Battalion Headquarters for U.S. Army Priority Air Transport
 Environmental Assessment (August 2012 Draft)
 Joint Base Andrews (JBA)

The Environmental Planning Section has reviewed the Environmental Assessment for Construction and Operation of a Battalion Headquarters for the U.S. Priority Air Transport (Draft) dated August 2012. The proposed action was evaluated to determine the potential for significant adverse impacts on environmental resources, including but not limited to air quality, noise, geology and soils, water resources, and biological resources. The following commentary is based on a review of the draft EA and an interpretation of aerial photographs and maps. A site visit was not conducted. The following comments are provided for your consideration.

Proposed Activity or Action

Construction of a new building is proposed for a battalion headquarters. Three locations within the JBA complex were evaluated as alternative locations for the proposed 12,000 square foot facility which will replace an obsolete 7,000 square foot facility, in addition to a no action alternative. The three sites are similar in their existing character, but differ in their prior development activities.

The D Street and Brookley Avenue location is an existing structure and parking lot that would be demolished to make way for the replacement structure.

The Arnold Drive and D Street location is an undeveloped area of turf and landscape trees that has been previously graded and would be converted to development.

The Westover Drive and Arnold Drive location is an entirely wooded site that would require the removal 2.0 acres of trees for development and may contain nontidal wetlands.

Existing Conditions

The land area of the Joint Base Andrews (JBA)-Naval Air Facility Washington (formerly Andrews Air Force Base) is approximately 4,346 acres. JBA is bounded on the west by Branch Avenue, on the

northwest by Allentown Road, on the north by Suitland Parkway, and on the northeast by Pennsylvania Avenue, and is surrounded by various types of development.

Noise: The military noise environment consists primarily of three types of noise zones: low, moderate and high. Air Force Manual 32-1123(l) defines recommended noise limits from Air Force activities for established uses of land with respect to environmental noise. The noise environment at all three proposed site is classed as a Noise Zone 1 under Air Force Manual recommended noise limits, which indicates a relatively low noise environment that is acceptable for housing, schools, medical facilities, and other noise sensitive land uses. No noise sensitive areas as location within 2,000 feet of the proposed locations.

Air quality: The Clean Air Act, as amended, gives EPA responsibility to establish the primary and secondary national Ambient Air Quality Standards (NAAQS) that set acceptable concentration levels for six criteria pollutants; Particulate Matter (measured as both particulate matter and fine particulate matter, sulfur dioxide, carbon monoxide, nitrogen oxides, ozone, and lead. While each state has the authority to adopt standards stricter than those established under the federal program, Maryland accepts the federal standards.

Federal regulations designate Air Quality Control Regions (AQRs) in violation of the NAAQS as nonattainment areas. Federal regulations designate AQCRs with levels below the NAAQS as attainment areas. According to the severity of the pollution problem, ozone nonattainment areas can be categorized as marginal, moderate, serious, severe or extreme.

Prince George's County, and JBA, is within the National Capital Interstate Air Quality Control Region (AQCR 47). AQCR 47 is in the ozone transport region that includes 12 states and the District of Columbia. EPA has designated Prince George's County as follows: Moderate nonattainment for the 1997 8-hour ozone (O₃); nonattainment for the 1997 fine particulate matter (PM 2.5); and attainment for all other criteria pollutants.

Earth/Geological Resources: Joint Base Andrews is located on a plateau between the Anacostia and Potomac River. The elevation of the three alternative locations is between 260 and 265 feet above mean sea level.

Because of the considerable amount of development over the years, two of the proposed locations have soils categorized as Udorthents, which is land that is altered by disturbance to the extent that the original soil series cannot be identified. Soils for the wooded portion of the Westover Drive site are Hoghole-Grosstown soils. All of these soils are rated as not being limited for small building development, but are susceptible to flooding or ponding.

Water resources: Most of JBA, including the three proposed sites, are located in the Potomac River basin. Two of the proposed locations drain into the Tinkers Creek subwatershed, while the Westover Drive site drains north into to Henson Creek. The on-site waters are not Tier II waterways or within a Stronghold Watershed.

Regional water-supply aquifers are several hundred feet below ground surface, and no recharge areas are located on JBA.

In 2005 JBA completed a study of the 100-year floodplains on the base. Floodplains are generally limited to small streams and the area immediately adjacent to the streams. No floodplains are on any of the three proposed sites.

In accordance with the Clean Water Act, projects at JBA that involve the filling of wetlands would require section 404 permits from the U.S. Army Corps of Engineers and Nontidal Wetland Permit from MDE. No wetlands have been identified on two of the proposed sites, but it is possible that wetlands could occur on the Westover Drive site because an investigation has not been completed.

Biological resources: Nearly 80 percent of JBA is developed or intensely managed. The remaining patches of vegetation on unimproved areas consist of a mixed hardwood forest. The plants and animals found on JBA are typical of those found in the Atlantic Coastal Plain area. RTE species surveys have been performed on the site periodically. A federal endangered species, sandplain gerardia (*Agalinis acuta*), was identified during a 1994 field survey, but has not been found in subsequent surveys.

Five state-listed species (which were not identified in the Environmental Assessment) have been observed in the past at JBA, but only one, the swollen bladderwort (*Utricularia inflata*), was found in the western branch of the Belle Chance Pond, northeast of the Westover Drive site.

Environmental Consequences

Noise: Short-term increases in noise would result from the use of construction and demolition equipment. No long-term increases in the overall noise environment would be expected from implementing the proposed action.

Air Quality: The proposed action could affect air quality through airborne dust and other pollutants generated during construction and demolition. Air quality impacts would be considered minor unless the emissions would contribute to a violation of any federal, state or local air regulations.

Earth/Geological Resources: Short-term impacts on soils would be expected from construction activities. No long-term effect on soils would be expected

Water Resources: No adverse effects on water resources would be expected from implementing the proposed action. All construction will be conducted in accordance with erosion control and stormwater runoff laws and regulations to prevent any adverse effects on water quality. NPDES Permits for Stormwater Associated with Construction Activities would be obtained as well as the approval from MDE of a Stormwater Management Plan before any construction activity would begin.

Biological Resources: The proposed alternative locations for construction of the battalion headquarters are very similar in their environmental characteristics, with the exception of the Westover Drive location, which would include the removal of approximately 2.0 acres of woodlands for development. Federal facilities are not subject to local application of the Woodland and Wildlife Habitat Conservation Ordinance, but will be reviewed by the Maryland Department of Natural Resources for adherence to the Clean Water Act. The habitat on the wooded site provides a diverse habitat for plants and animals, but does not support federally or state-listed species.

Wetlands: A jurisdictional determination of wetlands would be performed on the Westover site before any ground disturbance would occur if the site is chosen for the facility. If wetlands are found, avoidance or mitigation would be applied in accordance with federal and state requirements.

Thank you for the opportunity to comment on the Environmental Assessment for the construction and Operation of a Battalion Headquarters for the U.S. Army Priority Air Transport at Joint Base Andrews-Naval Air Facility. If you have questions regarding these comments, please contact the Environmental Planning Section at 301-952-3650.

I:\Environ\Interagency Coordination \Federal Projects \battalion building. kf.doc

Martin, Maria

From: Osei, Christine
Sent: Wednesday, October 17, 2012 12:13 PM
To: Martin, Maria
Subject: FW: RE: Joint Base Andrews - New Batalion Headquarters

JBA – Transportation Comments

From: Burton, Glen
Sent: Monday, October 15, 2012 10:02 AM
To: Osei, Christine
Cc: Foster, Eric; Masog, Tom
Subject: RE: RE: Joint Base Andrews - New Batalion Headquarters

Christine:

I had an opportunity to review the PowerPoint and the Mandatory Referral for the subject application. Based on the project description, the US Army Priority Air Transport Command (USAPAT) plans to replace a 7,000 square foot building with a 12,000 square foot building. The new building will provide similar services as the older building but with more space in which to do it. Among those services are: classrooms, conferencing, training, cold and dry storage. Based on information provided in the PowerPoint, there will be no change in the number of USAPAT personnel and its operations once the new building is built. Consequently, one can reasonably assume that the traffic generation potential will remain unchanged, both within the Joint Base Andrews complex as well as beyond its borders. My conclusion therefore is that this proposed development will not have an adverse impact on the adjacent transportation network.

Glen

From: Osei, Christine
Sent: Wednesday, October 10, 2012 1:43 PM
To: Finch, Kim
Cc: Martin, Maria; Grover, Ruth; Burton, Glen
Subject: RE: RE: Joint Base Andrews - New Batalion Headquarters

Yes, the attached PowerPoint is said to be the summary of the Master Plan for the Joint Base Andrews.
Thank you

From: Finch, Kim
Sent: Wednesday, October 10, 2012 1:12 PM
To: Osei, Christine; Burton, Glen
Cc: Martin, Maria; Grover, Ruth
Subject: RE: RE: Joint Base Andrews - New Batalion Headquarters

Christine,

Are there any difference between this document and the EA that was previously provided to us for review?

Kim I. Finch, Planner Coordinator
Environmental Planning Section
Prince George's Planning Department
The Maryland-National Capital Park and Planning Commission
14741 Governor Oden Bowie Drive

Upper Marlboro, MD 20772
Office: (301) 952-3506 Fax: (301) 699-3799
Kim.finch@ppd.mncppc.org

From: Osei, Christine
Sent: Wednesday, October 10, 2012 11:30 AM
To: Burton, Glen
Cc: Martin, Maria; Finch, Kim; Grover, Ruth
Subject: RE: Joint Base Andrews - New Batalion Headquarters

Hello Glen

Attached is a presentation that was provided to me by the Andrews Base Planner, David Humphreys. If you have any questions, please call David directly from the information provided below.

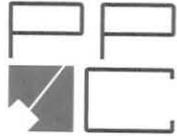
David K Humphreys, AICP
Community Planner
Phone: 301-981-1168 or 858-1168 (DSN)
Fax: 301-981-7125
E-Mail: david.humphreys@afncr.af.mil

Thank you

Christine A. Osei, Planner Coordinator
Mandatory Referral Review Project Manager
Special Projects Section, Countywide Planning Division
Prince George's County Planning Department
Email: Christine.Osei@ppd.mncppc.org
Telephone: 301.952.3313



MN
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION



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D12-092001
MR-12001A

October 23, 2012

Ms. Anne Hodges
Environmental Planner
Joint Base Andrews Naval Air Facility
11 CES/CEAO
3466 North Carolina Avenue
Joint Base Andrews, MD 20762

**RE: Construction of U.S. Army Battalion
Headquarters**

Dear Ms. Hodges:

The Prince George's County Planning Department appreciates the opportunity to comment on the Environmental Assessment for construction of Battalion Headquarters for the U.S. Army Priority Air Transport at Joint Base Andrews (JBA). The US Army Priority Air Transport Command (USAPAT) plans to replace a 7,000 square foot building with a 12,000 square foot building. The new building will provide similar services as the older building but with more space in which to do it. Among those services are: classrooms, conferencing, training, and cold and dry storage.

Enclosed with this letter is a copy of the Environmental Planning Section's evaluation and comments on the proposed construction of the demolition and disposal of Building 1778 and the construction of a new battalion headquarters facility.

The proposed project does not include any impacts to any cultural or historic resources within Prince George's County. JBA includes two properties designated as Prince George's County historic sites: 77-001-Forest Grove Methodist Church and Cemetery (Chapel 2), and 77-014-Belle Chance and Cemetery. Neither of these properties will be affected by the proposed demolition and construction.

Based on the information provided there will be no change in the number of USAPAT personnel and its operations once the new building is built, and the transportation impact of the traffic generation potential will remain unchanged, both within the Joint Base Andrews complex as well as beyond its borders. The proposed development will not have an adverse impact on the adjacent transportation network.

In addition the staff agrees with the assessment's conclusion that a short-term minor beneficial economic effect on the regional economy would be expected from implementing the proposed action.

Ms. Anne Hodges

OCT 23 2012
Page 2

Thank you again for allowing us the opportunity to comment on this Environmental Assessment. If you should have any additional questions or need additional information, please contact Christine Osei, Mandatory Referral Project Manager, Special Projects, Countywide Planning Division, at 301-952-3313 or via Christine.Osei@ppd.mncppc.org.

Sincerely,



Fern V. Piret
Planning Director

Enclosure

- c: Derick Berlage, Chief, Countywide Planning Division
- Maria Martin, Planning Supervisor, Special Projects Section, Countywide Planning Division
- Katina Shoular, Planning Supervisor, Environmental Planning Section, Countywide Planning Division
- Howard Berger, Planning Supervisor, Historic Preservation Section, Countywide Planning Division
- Jacqueline Philson, Planning Supervisor, Research Section, Countywide Planning Division
- Tom Masog, Planner Coordinator, Transportation Planning Section, Countywide Planning Division



Rushern L. Baker, III
County Executive

PRINCE GEORGE'S COUNTY GOVERNMENT



Department of Public Works and Transportation
Office of the Director



MEMORANDUM

November 2, 2012

TO: Beverly Warfield, PGEO Clearinghouse Coordinator
Department of Environmental Resources

FROM: *WIA* Haitham A. Hijazi, Director
Department of Public Works and Transportation

RE: Joint Base Andrews
Clearinghouse Referral Number MD20120919-0683

This is in response to your September 24, 2012, request for review of the above-referenced Clearinghouse Referral.

The Department of Public Works and Transportation (DPW&T) has reviewed the subject Referral and has the following comments:

1. No grading or storm drain connection permit will be required for or by, and on land owned by, the United States of America. Nevertheless, the County respectfully requests that this development follow the grading and stormwater design provisions of Prince George's County Subtitle 32, particularly Section 170 in regards to the stormwater management requirement of environmental site design (ESD) to the maximum extent practicable (MEP).
2. From a stormwater/environmental perspective, the preferred location for the new building is on D Street and Brookley Avenue. This location would result in less new impervious surface than the other locations, and, therefore, less adverse impact on County waterways.

Beverly Warfield

November 2, 2012

Page 2

If you have any questions or need additional information, please contact Mr. Rey de Guzman, Chief, Engineering and Inspection Services Division, Office of Engineering, at (301) 883-5710.

HAH:SS:dar

cc: Andre' Issayans, Deputy Director, DPW&T
Dawit Abraham, P.E., Associate Director, OE, DPW&T
Rey De Guzman, P.E., Chief, EISD, OE, DPW&T
Armen Abrahamian, Chief, Traffic Safety Division, OE, DPW&T
Steven Snyder, P.E., District Engineer, EISD, OE, DPW&T