ENVIRONMENTAL ASSESSMENT (Draft)

FOR

Re-Alignment of
Army Aviation Support Facilities

AT

AIR NATIONAL GUARD BASE/BERRY FIELD
Nashville International Airport
Nashville, Tennessee

TENNESSEE ARMY NATIONAL GUARD

Prepared by:

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ENVIRONMENTAL ASSESSMENT ORGANIZATION

This Environmental Assessment (EA) discloses the potential direct, indirect, and cumulative environmental, cultural, physical, and socioeconomic effects that would result from the Proposed Action of re-stationing/transfer of all Tennessee Army National Guard (TNARNG) aviation assets and related facilities presently located at the Volunteer Training Site - Smyrna (VTS-S), Smyrna, Tennessee.

As required by the National Environmental Policy Act of 1969 (NEPA; 42 USC 4321 et seq.), Council on Environmental Quality (CEQ) Regulations Implementing the Procedural Provisions of NEPA (40 CFR 1500-1508), and 32 CFR Part 651 (Environmental Analysis of Arms Actions, Final Rule), the potential effects of the Proposed Action are analyzed. This EA will facilitate the decision-making process by the TNARNG, National Guard Bureau (NGB). The outline and content of this EA have been prepared in accordance with the guidelines provided in the NGB NEPA Handbook (October 2011). The EA is organized into the following sections:

EXECUTIVE SUMMARY: Describes the Proposed Action and its considered alternatives; summarizes environmental and socioeconomic consequences; and compares potential effects associated with the considered alternative to the No Action Alternative.

SECTION 1 PURPOSE AND NEED FOR THE PROPOSED ACTION: Summarizes the purpose and need for the Proposed Action, provides relevant background information, and describes the scope of the EA.

SECTION 2 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES: Describes the Proposed Action, including pertinent details of the facility's construction and establishment of necessary infrastructure, associated construction and operations, the alternatives considered for implementing the Proposed Action, as well as the No Action alternative.

SECTION 3 AFFECTED ENVIRONMENT: Describes the existing environment and socioeconomic setting for the Project Area and surrounding region.

SECTION 4 ENVIRONMENTAL CONSEQUENCES: Identifies potential environmental and socioeconomic effects of implementing the Proposed Action and the No Action alternative, identifies mitigation measures, where appropriate, and summarizes the significance of individual and cumulative effects of the Proposed Action.

SECTION 5 COMPARISON OF ALTERNATIVES AND CONCLUSIONS: Compares and contrasts the effects of the Proposed Action and the No Action alternative and summarizes the significance of individual and expected cumulative effects.

SECTION 6 REFERENCES: Provides bibliographic information for cited sources.

SECTION 7 LIST OF PREPARERS: Identifies document preparers and their areas of expertise.

SECTION 8 AGENCIES AND INDIVIDUALS CONSULTED: Lists agencies and individuals consulted during preparation of this EA.

APPENDICES

A. Environmental Laws Relevant to the Proposed Action

B. Agency Correspondence

C. Public Comments

D. Applicable Reference Material

ENVIRONMENTAL ASSESSMENT SIGNATURE PAGE

Lead Agency:	National Guard Bureau (NGB)
Cooperating Agency:	Air National Guard (ANG)
Title of Proposed Action:	Re-Alignment of Army Aviation Support Facilities at Air National Guard Base/Berry Field
Affected Jurisdiction:	Nashville, Tennessee
Point of Contact:	Ralph Harder, Tennessee Army National Guard Houston Barracks Nashville, TN 37204 Telephone (615) 426-5937 ralph.harder@tn.gov

REVIEWED BY:

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Terry M. Haston
Major General
The Adjutant General

DOCUMENT DESIGNATION: Draft Environmental Assessment

ABSTRACT: The NGB and TNARNG with the ANG as a Cooperating Agency propose to relocate Army aviation and related units (personnel, equipment and facilities) from Volunteer Training Site-Smyrna (VTS-S) Smyrna, Tennessee to existing underutilized facilities and spaces at the Air National Guard Base, Nashville International Airport (Berry Field), Nashville, Tennessee. The Proposed Action is necessary to support the TNARNG Federal and state missions. This relocation will provide space for the operations, administration, maintenance and training of the ten (10) aviation units including twenty (20) helicopters and one (1) fixed-wing aircraft to be stationed there. Approximately 100 FTUS will work at the 34 acre site with up to 500 personnel present during Inactive Duty Training (IDT) periods.

This Environmental Assessment (EA) evaluates the individual and cumulative effects of the Proposed Action (relocation of units from VTS-S and reuse of facilities at Berry Field) and the No Action Alternative addressing land use, air quality, noise, geology and soils, water resources, biological resources, cultural resources, socioeconomics, environmental justice, infrastructure, hazardous and toxic material/wastes, lighting and visual effects and Cumulative Impacts.

The evaluation performed in this draft EA concludes that there would be no significant adverse impact, either individually or cumulatively, to the environment or quality of life associated with the implementation of the Proposed Action.

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EXECUTIVE SUMMARY

The Tennessee Army National Guard (TNARNG) has prepared this Environmental Assessment (EA) to address environmental concerns for a proposed project to enhance training mission capability. The proposed action would seek to acquire currently underutilized Tennessee Air National Guard facilities at the Nashville International Airport, undertake a facility conversion and renovation program and move units (personnel, equipment and supplies) from Volunteer Training Site - Smyrna to the proposed location. This action would also abandon the units' current location and release these facilities for reprogrammed use.

This EA summarizes results of the analyses conducted in accordance with the National Environmental Policy Act (NEPA), as amended (Title 42, United States Code Sections 4321 through 4370), and in accordance with Council on Environmental Quality (CEQ) regulations implementing the procedural provisions of NEPA (Title 40, Code of Federal Regulations Parts 1500 through 1508 [40 CFR 1500-1508]). This EA was also prepared in accordance with 36 CFR 651, Environmental Analysis of Army Actions, and the National Guard Bureau's NEPA Handbook (October 2011). The proposed property use acquisition would take place on Metropolitan Nashville Airport Authority owned property that is leased to the U.S. Air Force (AF). A portion of this property would be permitted by the AF to the US COE who would then license it to the Tennessee Army National Guard. As the Proposed Action would occur on property leased by the U.S. Air Force, the EA will comply with Air Force 32 CFR 989, Environmental Impact Analysis Process. Pursuant to Department of Defense (DoD) Directive 5105.77, National Guard Bureau (NGB), dated 21 May 2008, the NGB serves as the principal advisor on matters involving the Army National Guard (ARNG), and is responsible for implementing DoD guidance on the structure and strength authorizations of the ARNG. The NGB is responsible for ensuring that ARNG activities are performed in accordance with applicable policies and regulations. As such, the NGB is the lead federal agency responsible for preparation of NEPA-compliant documentation on projects for which the TNARNG is the proponent and the ANG is a cooperating agency. In that capacity, the NGB is ultimately responsible for environmental analyses and documentation; however, the local responsibility for NEPA document preparation falls upon the TNARNG (DoD Directive 5015.77).

The purpose of the Proposed Action is to support the facility requirements and the mission of aviation units assigned to Army Aviation Support Facility (AASF) #1 and other supporting TNARNG units.

Description of Proposed Action and Alternatives

Proposed Action
The TNARNG proposes to operate an Army National Guard training facility in underutilized facilities available from the Tennessee Air National Guard. Scope of this proposed action includes conversion and renovation of existing buildings and grounds for mission operations, maintenance and limited training activities in support of Army aviation and support units. This action would provide aircraft storage and maintenance facilities, administrative areas, flight operations facilities, training classrooms, equipment and supplies storage, fueling operations and associated support functions.

A phased schedule would include initial conversion and rehabilitation project construction and relocation of personnel and assets from their current operational location at Volunteer Training Site - Smyrna to the Nashville International Airport.

No Action Alternative

Pursuant to NEPA and CEQ regulations, the No Action alternative must be considered. The No Action alternative serves as a baseline against which the environmental impacts of the other alternatives are measured. If the No Action alternative was selected, in this case, the TNANG facilities would not be acquired and the TNARNG units would continue to operate in substandard facilities at the VTS-S. The current facility presents a facility shortfall that adversely impacts current mission capability and unit readiness.

Summary of Environmental Analysis

Land Use. Acquisition and conversion of the TNANG facility would not adversely impact current or future land use. Utilization of this facility by the TNARNG is consistent with current and future land use for this area by the Metropolitan Nashville Airport Authority (MNAA) and is compatible with off-installation current and proposed land use.

Air Quality. Air pollution emissions associated with the Proposed Action would not significantly impact area air quality and are within applicable ambient air quality standards. Davidson County is in attainment for NAAQS, therefore the General Conformity Rule is not applicable. An operational air emissions inventory was developed and projected operational air emissions calculated. These emissions were compared to de minimis maintenance parameters and found not to meet threshold emissions levels. Construction activities are relatively minor in nature. Air emissions were found to be insignificant.

Noise. Operational noise emissions were included with the estimated Nashville International Airport 2017 Noise Emissions Map Update. Military operations contemplated by this action were included in the analysis. These operations fit within the projected noise contours and NIA Noise Mitigation Program plans. No significant impact is projected.

Geology and Soils. The vast majority of facility conversion and rehabilitation construction project work will be conducted inside buildings and have not impact on site geology and soils.

Water Resources. Construction work will not impact groundwater resources, the proposed project site is not located within a floodplain, and there are no wetlands within the project boundary. Therefore, there will be no impact on these water resources. Stormwater, will be managed through a NPDES Industrial Stormwater Permit and associated Stormwater Pollution Prevention Plan, Spill Prevention Control and Countermeasures Plan and associated BMP's. Therefore, no significant impact will be realized.

Biological Resources. Given the highly developed nature of existing facilities and ground cover, and human activities, impact on biological resources will not be not be significant.

Cultural Resources. No historic structures, archaeological resources or traditional cultural properties have been identified on the proposed project facility. Therefore, we anticipate no significant impact.

Socioeconomics. Given the limited number of personnel involved in this proposed project, no significant impact is anticipated.

Environmental Justice. No projects are anticipated off-installation and flight operations will conform to FAA Air Traffic Control procedures. We anticipate no significant impact on socio-economic disadvantaged groups.

Infrastructure. Given the limited number of personnel regularly involved in operations, we anticipate no significant impact on local infrastructure systems.
Hazardous and Toxic Materials/Wastes. Small quantities of hazardous waste will be generated from aircraft operations. However, these wastes will be managed in accordance with the installation Hazardous Waste Management Plan. Hazardous materials will be utilized on site but will be transported and stored in accordance with BMP's. No significant impact will be exerted on this resource.

Lighting and Visual Effects. Facility architecture and visual presentation is consistent with surrounding facilities. Aircraft navigational lighting will have no significant impact on the current lighting environment.

Cumulative Impacts. This project is consistent with current NIA and Nashville Planning Commission land use development plans. Environmental impacts of this proposed project will be considered in future NIA development projects and may be included with projects sponsored by the U.S. Army Corps of Engineers, Tennessee Valley Authority, other Federal agencies and Federally-funded projects.

Findings and Conclusions

Based upon the results of the analysis conducted by this Environmental Assessment, we have determined that implementation of the Proposed Action would result in no significant impacts on the natural or human environment. No mitigation measures will be necessary to reduce any adverse impacts to below significant levels. Implementation of the Proposed Action is in conformity with NEPA requirements and applicable Federal, State and local environmental regulatory requirements. Therefore, no additional analyses or further NEPA documentation are required.

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LIST OF ACRONYMS AND ABBREVIATIONS

Acronyms	Abbreviations
°C	Degrees Celsius
°F	Degrees Fahrenheit
AASF	Army Aviation Support Facility
ACBM	Asbestos-Containing Building Material
AFB	Air Force Base
APEN	Air Pollutant Emission Notes
AQCR	Air Quality Control Region
AR	Army Regulation
ARNG	Army National Guard
ASTs	Aboveground Storage Tanks
AT/FP	Anti-Terrorism/Force Protection
BGEPA	Bald and Golden Eagle Protection Act
BMPs	Best Management Practices
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability
CFR	Code of Federal Regulations
CGP	Construction General Permit
CO	Carbon Monoxide
CRP	Comprehensive Restoration Program
CST	Civil Support Team
dB	Decibels
dB(A)	A-Weighted Decibel
DoD	Department of Defense
EA	Environmental Assessment
EBS	Environmental Baseline Survey
EO	Executive Order
EPA	Environmental Protection Agency
ERP	Environmental Restoration Program
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FY	Fiscal Year
FTUS	Full-time United States
HAPs	Hazardous Air Pollutants
HEMTT	Heavy Expanded Mobility Tactical Trucks
HWMP	Hazardous Waste Management Plan
IAP	International Airport
IFs	Isolated Finds

LIST OF ACRONYMS AND ABBREVIATIONS (Continued)

Acronyms	Abbreviations
IICEP	Interagency/Intergovernmental Coordination for Environmental Planning
JP	Jet
LBP	Lead-based Paint
LRCP	Long Range Capital Projects
MBTA	Federal Migratory Bird Treaty Act
MI	Military Intelligence
MILCON	Military Construction
MMBtu	Million Metric British Thermal Units
MNAA	Metro Nashville Airport Authority
MS4	Municipal Separate Storm Sewer System
MSA	Metropolitan Statistical Area
MSAT	Mobile Source Air Toxics
MSGP	Multi-sector General Permit
MVSA	Military Vehicle Storage Area
NAAQS	National Ambient Air Quality Standards
NEM	Noise Exposure
NEPA	National Environmental Policy Act
NGB	National Guard Bureau
NIAP	Nashville International Airport
NO_2	Nitrogen Oxide
NOI	Notice of Intent
NO_X	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NSR	New Source Review
O_3	Ozone
OHWM	Ordinary High Water Mark
PBO	Programmatic Biological Opinion
PMCS	Preventive Maintenance Checks and Services
$PM_{2.5}$	Particulate Matter (≤2.5 microns in diameter)
PM_{10}	Particulate Matter (> than 2.5 and ≤10 microns in diameter)
POL	Petroleum, Oil, and Lubricants
POV	Privately Owned Vehicle
PRRIP	Platte River Recovery Implementation Program
PSD	Prevention of Significant Deterioration
ROI	Region of Interest
sf	Square Feet
SHPO	State Historic Preservation Office
SO_2	Sulfur Dioxide

LIST OF ACRONYMS AND ABBREVIATIONS (Continued)

Acronyms	Abbreviations
SPCC	Spill Prevention Control and Countermeasures
SPWRAP	South Platte Water Related Activities Program
SWMP	Storm Water Management Plan
SWPPP	Storm Water Pollution Prevention Plan
sy	Square Yards
TCP	Traditional Cultural Properties
TN	Tennessee
TNARNG	Tennessee Army National Guard
TDEC	Tennessee Department of Conservation and Environment
TMSP	Tennessee Multi-Sector Permit
tpy	Tons per Year
TWRA	Tennessee Wildlife Resource Agency
USAF	U.S. Air Force
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Service
USTs	Underground Storage Tanks
VOCs	Volatile Organic Compounds
VTS-S	Volunteer Training Site - Smyrna
WVSA	Wheeled Vehicle Storage Area

SECTION 1 PURPOSE OF AND NEED FOR THE PROPOSED ACTION

1.1 Introduction

Nashville International Airport is a joint civil-military airport located southeast of downtown Nashville, Tennessee. The Berry Field Air National Guard Base is prominently located on the southeastern edge of the Nashville International Airport property and was home to the 118th Airlift Wing, Air National Guard. Today, the base consist of approximately 88 acres with hangers, support buildings and aircraft apron. The Government has leasehold interest in the base extending until 30 June 2045. Over time, the Air Force has contributed considerable funds to modernize the base to include recent construction of a new 106,940 square foot hangar costing over $74 million dollars. The Air Guard Wing also holds a license issued by the Air Force to occupy leased area.

In 2012, the United States Air Force relocated C-130 operations away from the 118th Airlift Wing, Berry Field, Nashville, Tennessee. The reorganized Air Force unit is designated the 118th Wing and remains the permitted lease holder. The Adjutant General of Tennessee has proposed re-stationing/transfer all Tennessee Army National Guard (TNARNG) aviation assets from the Army Aviation Support Facility, # 1 (AASF#1) presently located at the Smyrna/Rutherford County Airport to the vacated aircraft facilities at Berry Field.

Justifications for move include availability of newly constructed aircraft hanger and relatively good aviation infrastructure that can readily be adapted to army aviation requirements. Plans to construct a new Army Aviation support and readiness Center at the Smyrna Airport estimated at $74 million can be deleted from the LRCP. The proposed relocation would remedy a 34,202 square foot shortfall of hangar space and 89,386 square foot ground support space shortfall of 173,077 square feet, including other smaller facilities, see Section 2.1.

The AASF#1 consists of 9 TNARNG Aviation Units and a C-12 detachment; 400 soldiers (approximately 100 of these are FTUS) and 21 Aircraft (16 Blackhawks, 4 Lakota's, 1 C-12).
Related Vehicle, Maintenance and Storage requirements include, Ground Vehicle Maintenance Facility, POV parking for approximately 500 soldiers per IDT Weekend, Military Vehicle Storage Area (MVSA) for approximately 190 pieces of rolling stock, Container Storage Yard for the AASF and Aviation Squadron use.

TNARNG is requesting that 34 acres, including 7 primary buildings be permitted from the Air Force to the United States Army Corps of Engineers (USCOE) and then licensed to the TNARNG for joint usage of the land and facilities at Berry Field. TNARNG Aviation units will occupy the facilities as a tenant.

1.2 Purpose and Need

The purpose of the Proposed Action is:

To support and enhance the Tennessee Army National Guard's (TNARNG) Aviation mission and operations by relocating AASF#1 and associated Readiness Center from the Smyrna/Rutherford County Airport to the former 118TH Wing facility located at the Nashville International Airport (Nashville IAP) Nashville, TN (Figure 1-1). The Adjutant General proposes to transfer all TNARNG Aviation assets presently located at AASF # 1 in Smyrna, TN., to the vacated excess Berry Field property, approximately 200,000 square feet, in Nashville, TN. The foremost reason for this proposal is the availability of underutilized Air Force aviation infrastructure including a newly construction aircraft hanger that can be readily adapted to Army Aviation requirements. Secondly, plans to construct a new

Army Aviation Support and Readiness Center facilities at Smyrna, TN., estimated at $74 million can be deleted from the Long Range Construction Plan. The proposed action would remedy two (2) significant facility deficiencies, approximately,

(1) 34,000 square feet shortfall of hangar space and

(2) 89,000 square feet ground support facilities.

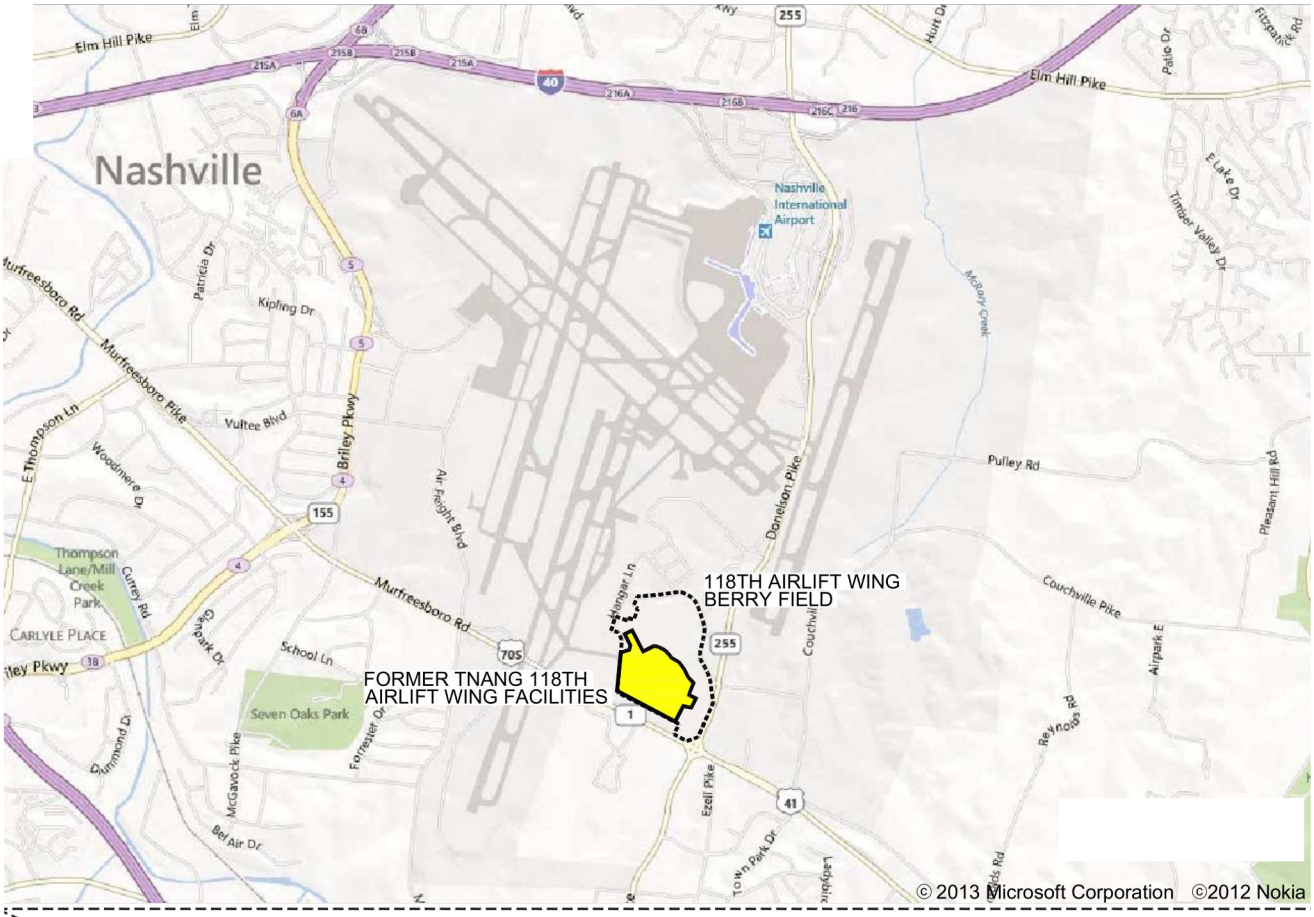
The TNARNG is requesting that the following facilities be permitted from the Air Force to the United States Army Corps of Engineers and then licensed to the TNARNG for joint usage of the land and facilities at Nashville IAP:

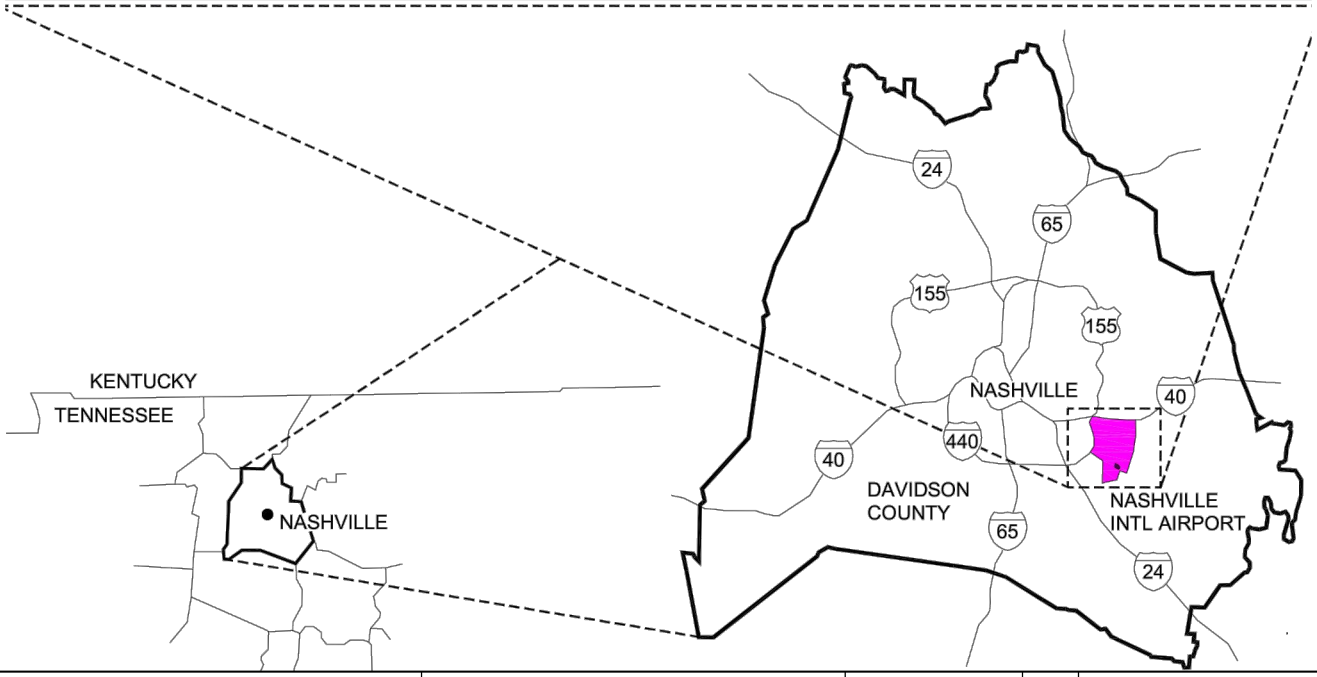
- Building 702: Former Paint Shop
- Building 721: Offices and Shop space
- Building 723: Flight Operations
- Building 734: Former Corrosion Control Shed and Aircraft Wash Pad with Oil/Water Separator
- Building 741: Fuel Cell Repair Hangar
- Building 742: Compressor Building
- Building 757: Aircraft Maintenance Hangar
- Aircraft Apron
- POL Fuel Facilities
- Associated POV parking areas

Upon completion of all agreements the TNARNG Aviation unit will occupy the facilities as a tenant. The Site Map of Berry Field, Nashville IAP and highlighted facilities is presented by Figure 1-2.

1.3 Scope of the EA

This EA discloses the potential direct, indirect, and cumulative environmental, cultural, physical, and socioeconomic effects that would result from the Proposed Action of re-stationing/transfer of all Tennessee Army National Guard (TNARNG) aviation assets (AASF#1) presently located at the VTS-S Aviation facility. The location proposed for the re-stationing is an approximately a 34 acre parcel located at the former Tennessee Air National Guard (TNANG) 118th Airlift Wing facilities located at Nashville International Airport. Potential impacts associated with the proposed action and its operations are evaluated against impacts associated with alternatives and the No Action alternative of maintaining the current conditions (see Section 2 for a description of alternatives considered for this Proposed Action). Based on the analysis of impacts in the EA, a determination on the significance of impacts will be made in a decision document. If the anticipated impacts are determined to be significant, the TNARNG would either prepare an Environmental Impact Statement or would not implement the proposal. If impacts are determined to be insignificant, a Finding of No Significant Impact (FNSI) would be prepared.





JOINT VENTURE PARTNERS

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Title :
Vicinity Map
Air National Guard Base/Berry Field
Nashville, TN
Source : EBS Survey No. S00113660-13 (2013)

Scale: NTS

Project :
Re-alignment of Army Aviation Support Facilities at Air National Guard Base/Berry Field

Proj. # 20100247

Date: 08/15/13

Figure. No. 1-1

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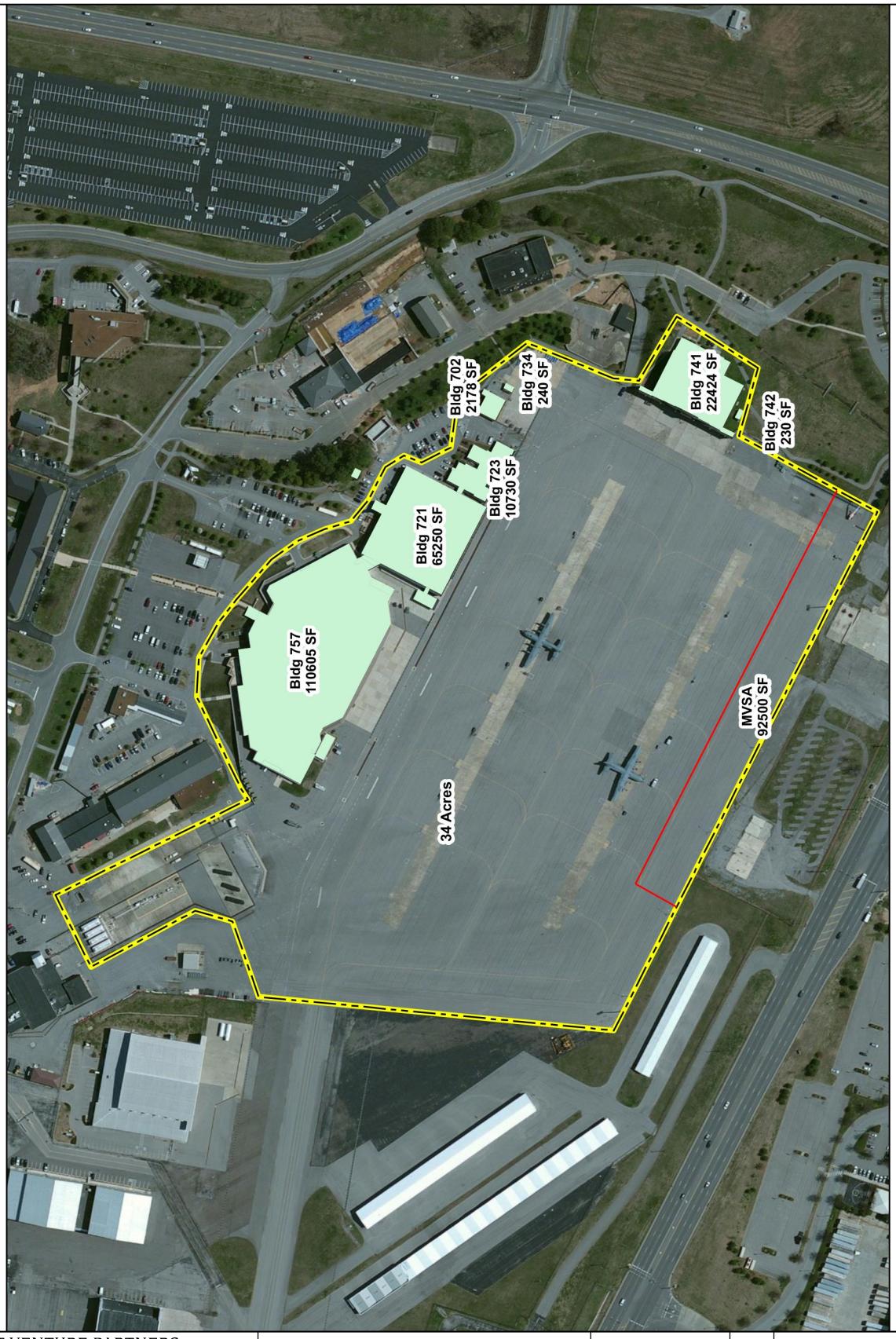

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Title :
Site Map
Air National Guard Base/Berry Field
Nashville, TN
Source : EBS Survey
No. S00113660-13 (2013)

Scale: NTS

Project :
Re-alignment of Army Aviation Support Facilities at Air National Guard Base/Berry Field

Proj. # 20100247

Date: 08/15/13

Figure. No. 1-2

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This EA also addresses the environmental impacts of the Proposed Action in the context of potential cumulative impacts, if any. A cumulative impact, as defined by the CEQ (40 CFR 1508.7), is the "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of which agency (federal or non-federal) or person undertakes such actions. Cumulative impacts can result from individually minor, but collectively significant actions taking place over a period of time."

Procedures specified in 32 CFR 651, Air Force 32 CFR 989, and other Army regulations are essential to achieve and maintain compliance with NEPA and the CEQ regulations. This EA has been prepared to comply with NEPA and to address the Proposed Action's compliance with other applicable environmental laws and regulations. Tennessee Army National Guard (TNARNG) or the construction contractor for the project would acquire any permits and licenses required for the construction of the Army Aviation Support Facility (AASF). Environmental laws and regulations that would be followed that have consultation/permitting requirements include, but are not limited to: Historic Site Act of 1935; Clean Air Act of 1970 (CAA); Endangered Species Act of 1973 (ESA); National Historic Preservation Act of 1979; Native American Graves Repatriation Act of 1990, the Bald and Golden Eagle Protection Act of 1940 (BGEPA); and the Fish and Wildlife Conservation Act of 1980

1.3.1 Outline and Content of the EA

The outline and content of this EA have been prepared in accordance with the guidelines provided in the NGB NEPA Handbook (October 2011). The EA is organized into the following sections:

- Section 1 - Purpose and Need for the Proposed Action: This section describes the purpose of and need for the project.
- Section 2 - Description of the Proposed Action and Alternatives: This section provides details about the Proposed Action, and includes a description of alternatives that were considered for achieving the stated purpose of the Proposed Action, including alternatives that were eliminated from detailed study.
- Section 3 - Affected Environment: This section provides a description of the existing resources with the potential to be affected by the Proposed Action and alternatives.
- Section 4 - Environmental Consequences: This section describes the environmental effects of implementing the Proposed Acton and No Action alternative. The analysis is organized by resource and considers direct and indirect effects. The effects of the No Action alternative provide a baseline for evaluation and comparison. Mitigations and actions that may be taken to reduce impacts to resources are discussed.
- Section 5 - Comparison of Alternatives and Conclusions: This section compares and contrasts the environmental effects of the alternatives.
- Section 6 - References: This section provides bibliographical information for sources cited in the EA.
- Section 7 - List of Preparers: This section lists those persons directly involved in the preparation of this EA.
- Section 8 - Agencies and Individuals Consulted: This section lists the agencies that were consulted or whom provided comments during the EA development.

Resource areas that could be affected by the Proposed Action or alternatives have been selected to allow for a comprehensive analysis of potential impacts. The following resource areas are discussed in detail in the EA:

- Land Use
  - Air Quality
  - Noise
  - Geology and Soils
  - Water Resources
    - Surface Water
    - Groundwater
    - Floodplains
    - Stormwater
    - Wetlands
  - Biological Resources
    - Vegetation
    - Wildlife
    - Threatened and Endangered Species
  - Cultural Resources
    - Historic Structures
    - Archaeological Resources
    - Traditional Cultural Properties
  - Socioeconomics
  - Environmental Justice
  - Infrastructure
    - Transportation
    - Electrical System and Natural Gas
    - Potable Water
    - Sanitary Sewer
  - Hazardous and Toxic Materials/Wastes
    - Hazardous Materials
    - Hazardous Wastes
    - Storage Tanks
    - Environmental Restoration Program
    - Asbestos Containing Material
    - Lead Based Paint

1.4 Public and Agency Involvement

Agency scoping is an important component of the EA process and includes consultation with agencies that regulate or influence activities associated with the construction and operation of 16 facilities at the proposed project site. These agencies include the DoD, U.S. Air Force (USAF), TNARNG, Environmental Protection Agency (EPA), U.S. Fish and Wildlife Service (USFWS), Federal Aviation Administration, United States Geological Survey, Natural Resources Conservation Service, Tennessee Department of Environment and Conservation (TDEC), Tennessee Wildlife Resource Agency (TWRA), State Historic Preservation Office (SHPO), and Native American tribes and nations. Section 8 provides a list of thirteen agencies and fourteen Indian Tribes contacted as part of the preparation of this EA, and Appendix B contains a copy of the __ scoping letters sent to these agencies.

Public involvement is also an important component of the EA process; it includes both interested members of the public and other stakeholders. Public involvement will occur during the review of the final EA. Notification of the final EA would be accomplished via a display advertisement published in ___TBD_____.

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SECTION 2 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

2.1 Proposed Action

This Non-Enhanced Use Lease Real Estate Action will consist of moving ten (10) TNARNG Aviation Units from Volunteer Training Site - Smyrna, TN (VTS-S) to Berry Field, Nashville, TN. The Units as well as the aircraft assigned which will also be relocated are listed below in Table 1:

TABLE 1: UNITS, PERSONNEL & AIRCRAFT TO BE RELOCATED TO BERRY FIELD

ARMY AVIATION UNITS	UIC	LOCATION	# PERSONNEL
HHT(-), 1/230TH CAV REGT	WV7PT0	SMYRNA, TN	63
TRP D, 1/230TH CAV REGT	WV7PD0	SMYRNA, TN	43
DET 1, TRP E, 1/230TH CAV REGT	WV7PE1	SMYRNA, TN	33
DET 1, TRP F, 1/230TH CAV REGT	WV7PF1	SMYRNA, TN	32
TRP G(-), 1/230TH CAV REGT	WV7PG0	SMYRNA, TN	95
DET 1, CO C, 1/169TH AVN REGT	WNG7GD	SMYRNA, TN	44
DET 4, CO D, 1/169TH AVN REGT	WNG7GG	SMYRNA, TN	9
DET 4, CO E, 1/169TH AVN REGT	WNG7GP	SMYRNA, TN	6
CO B(-), 1/224TH AVN REGT	WP7QB0	SMYRNA, TN	64
DET 25, OSA (C12 DETACHMENT)	WP7QB0	SMYRNA, TN	8
AIRCRAFT TYPE	**AUTHORIZED**		**LOCATION**
UH-60 BLACKHAWK	10		SMYRNA, TN
HH-60 BLACKHAWK	6		SMYRNA, TN
UH-72 LAKOTA	4		SMYRNA, TN
C-12 FIXED WING	1		SMYRNA, TN

These units and equipment are currently supported by the Army Aviation Support Facility (AASF) #1, Readiness Center (RC) and other miscellaneous spaces (Misc), located at VTS-S. To provide basing and support for these units, DOD has requirements for a number, type and size of facilities - Required. At VTS-S, the currently available facilities and size for these units are listed as - Current. The following Table 2 compares Current to Required square footage.

TABLE 2: CURRENT/REQUIRED USAGE (SQUARE FEET)

AASF #1	CURRENT	REQUIRED
Hangar	50,798	91,554
Specialized Work Areas	4,252	14,040
Personnel Support Areas	13,614	18,435
Fixed Wing Facilities	0	9,211
Unheated Aircraft Storage	0	41,720
Aviation Facility Requirements	0	3,220
Wheel Vehicle Storage, MVSA	92,475	92,475
TOTAL AVIATION FACILITY AREA	**161,139**	**270,655**

TABLE 2: CURRENT/REQUIRED USAGE (SQUARE FEET) - Continued

READINESS CENTER	CURRENT	REQUIRED
Assembly Hall	10,722	25,794
Administrative Offices	8,137	21,170
Storage	8,310	24,620
Support Space (IT, mechanical, electrical)	5,193	24,339
TOTAL ALLOWANCE	**32,362**	**95,923**
MISCELLANEOUS USE		
1-107th AOB, BLDG 537	2,189	0
Unit Storage, BLDG 648	3,279	0
Unit Storage, BLDG 131	9,476	0
Unit Storage, BLDG 665	6,360	0
Severe Weather Hanger	30,000	0
TOTAL ALLOWANCE	**51,304**	**0**
GRAND TOTAL	**244,805**	**366,578**

Due to the 2012 change of mission, the 118TH Wing located at Berry Field, is scheduled to reduce their facilities area by approximately 200,000 square feet. This reduction will include seven (7) buildings, two (2) recreation shelters and one (1) covered walkway to be permitted from the Air Force to the United States Army Corps of Engineers and then licensed to the TNARNG for joint usage of the land and facilities at Berry Field. Upon completion of all agreements the TNARNG Aviation units, above, will occupy the facilities as a tenant. This relocation will enable the TNARNG to eliminate current plans to construct a new Army Aviation Support and Readiness Center at Smyrna, TN from the Long Range Construction Plan, an estimated saving of $74 million. Relocating the Army Aviation to Berry Field would remedy an approximate 34,000sf shortfall of hangar space and 89,000sf ground support facility deficiencies.

The TNARNG is requesting that 34 acres of the existing USAF property at Berry Field be permitted from the Air Force to the United States Army Corps of Engineers and then licensed to the TNARNG for joint usage of the land and facilities at Berry Field. The area to be licensed contains 7 primary buildings and other facilities to be permitted from the Air Force to the United States Army Corps of Engineers and then licensed to the TNARNG for join usage of the land and facilities at Berry Field. TNARNG Aviation will occupy the following facilities as a tenant.

- Building 702: Former Paint Shop
- Building 721: Offices and Shop space
- Shelter 722: Recreation Shelter
- Building 723: Flight Operations
- Building 734: Former Corrosion Control Shed with Aircraft Wash Pad and Oil/Water Separator

- Building 741: Fuel Cell Repair Hangar
- Building 742: Compressor Building
- Building 757: Aircraft Maintenance Hangar
- Shelter 758: Recreation Shelter
- Shelter 759: Covered Walkway
- Aircraft Apron
- POL Fuel Facilities
- Associated POV parking – joint use of lot located north of Building 757, outside the TNARNG licensed area

2.1.1 Construction Activity

- Building 721: Readiness Center - Office, classrooms, supply rooms and latrine renovations, including expanded electrical service, portable vaults, internal relocation of walls and reroof.
- Building 723: Flight Operations - Reroof building and minor repairs.
- Building 741: Fuel Cell Repair Hangar - Repurpose for C-12 usage by construction of offices with caging mezzanine, repair roof and exterior areas.
- Building 757: Aircraft Maintenance Hangar - Minor renovations to facilitate helicopter maintenance activities. Minor roof repairs and electrical service additions required.
- Building 702 - Reroof and possible conversion to Maintenance Bay.
- Building 734 – Reroof.
- Building 742 - Repair roof and exterior areas.
- New Hazmat stand-alone storage sheds (2).
- Aircraft Apron - Addition of 16 aircraft tie-down points and MVSA fencing.
- POL Fuel Facilities - New metal building for relocated controls and power; trenching to relocate service equipment and new electrical service.

2.1.2 Operations

- Military Aircraft Operations
  - Arrival and departure (A/D) flights of 20 helicopters and 1 fixed-wing aircraft (except for MNAA A/D, no military training flights.
  - Aircraft training flights elsewhere at EXISTING training sites, including VTS-S and other areas.
  - MNAA military flights by 2016, total military - 11,000 per year and AASF #1 - 9,600.

- Personnel Administration and Training
  - Unit administrative operations of TNARNG aviation units (approximately 100 personnel on weekdays (FTUS) and 550 personnel on drill weekends).
  - Individual and unit training - classroom, computer lab, physical training and aircraft maintenance training but no flight training.
  - Recreation facilities include buildings 722 and 758, picnic tables with shelters.

- Equipment Maintenance and Storage
  - Maintenance shops for aircraft Wash Pad with oil/water separator.
  - Storage of Unit equipment, including aircraft in hangers and on flight ramp and wheeled vehicles in fenced area on a portion of the flight ramp.
  - Inclement weather storage of aircraft in buildings 741 and 727.
  - New Motor Vehicle Storage Area (MVSA) of approximately 92,475 sf for 192 vehicles and rolling stock to be established on south side of ramp. (Please refer to Appendix D for complete list).
  - Operator service checks (PMCS) of 192 wheel vehicles (WV), no higher level maintenance activities at this site. Wheel Vehicle Maintenance Shop activities to be conducted at existing facilities at VTS-S.
  - Fueling, using existing former Air Force POL facilities and unit refuelers (MFTs)
    - JP-8 only, to serve all aircraft and wheeled vehicles,
    - Use updated AF TMSP, Sector S and SPCC,
    - New dispenser to be constructed within secondary containment area near POL bulk tanks for wheeled vehicles.
  - Hazardous and non-hazardous waste management.

2.2 Alternatives Considered

As required by NEPA, the potential impacts of the Proposed Action on the human and natural environment must be evaluated, and reasonable alternatives to the Proposed Action must be considered. The TNARNG considered many factors when determining which alternatives were feasible for the Army Aviation stationing action. Any location chosen for the relocation of this unit must provide the necessary facilities to support an aviation unit. This includes an airfield, hangars, flight control and ground based support.

Four alternatives are considered in this EA:

Alternative A: Continue to operate at VTS-Smyrna: (NO ACTION)

Alternative B: Continue to operate at VTS-Smyrna and construct a new Army Aviation/Readiness Center with associated facilities to meet Requirements listed above.

Alternative C: Relocate to other Army or Air Force facilities in vicinity (Figure 2-1):

- Arnold AFB, Tullahoma, Tennessee
- Ft Campbell Army Airfield, Ft Campbell, Kentucky
- McGhee Tyson ANG Base, Maryville, Tennessee
- Memphis ANG Base, Memphis, Tennessee

Alternative D: Relocate to Berry Field, Nashville IAP and reoccupy former USAF hangers and facilities (Proposed Action).

2.2.1 Alternatives Development (Screening Criteria)

The TNARNG evaluated existing active-duty, National Guard, and Reserve installations to determine their potential suitability for supporting the needs of the Army Aviation Support Facility #1. TNARNG

planners applied the following screening criteria to the potential sites to determine which would meet the purpose and need of the proposed Army Aviation facility, meet the express facility support needs as described above in 2.2 and be compatible with regional land use policies.

To be carried forward for consideration, the sites under consideration had to meet the following screening criteria:

- Meet TNARNG mission needs for both federal and state missions.
- Located on federally owned or controlled property.
- Meet TNARNG budget constraints.

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Title :
Site Screening /
Alternative Sites Evaluated
Source : U.S. Air Force Briefing
April 2013

Scale: NTS

Project :
Re-alignment of Army Aviation Support Facilities at Air National Guard Base/Berry Field

Proj. # 20100247

Date: 08/15/13

Figure. No. 2-1

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- Provide adequate space for the project.
- Have utilities infrastructure close enough to minimize developmental costs.
- Have adequate access to a major road or interstate.
- Have readily adaptable buildings and facilities.
- Meet AT/FP standards in compliance with the DoD minimum antiterrorism standards for new and existing buildings (UFC 4-010-01), which provides 22 standards that must be achieved. These standards include:
    - Standoff distances and unobstructed space requirements to protect from explosion, access roads,
    - Appropriate site access controls,
    - Parking restrictions (i.e., beneath buildings or rooftops) and other collapse avoidances,
    - Reinforcement of masonry walls,
    - Designs for windows and skylights to protect against flying glass fragments,
    - Building entrance restrictions and exterior door requirements,
    - Roof access controls,
    - Height of air intakes and other ventilation,
    - Emergency shutoff requirements,
    - Security of utility systems,
    - Building mass notification (public address systems).
- Located within a reasonable distance (50 miles) from VTS-Smyrna.

2.2.2 Alternatives Eliminated From Further Consideration

The screening process of potential alternative sites, using the criteria above, is summarized in Table 2-1.Only the preferred alternative (proposed alternative) was identified as meeting all of the screening criteria. The eliminated options are described as:

Option B - Remain at VTS-Smyrna and Improve Facilities:
The current 50,798 SF of hangar space was constructed in 1958. The current Installation Status Report codes this facility as a Black Mission Rating due to the shortage of required space to complete the unit's mission. The hangers, shops, Readiness Center and flight operations are all below requirements for required space. The available readiness center space is nearly 70,000 SF below requirements. There is no unheated storage provided for airframes and hangar doors cannot close when performing maintenance. In order to continue to operate from this facility, the TNARNG would need to lease additional hangar space as well as lease additional maintenance and administrative space to operate. Renovation and using the existing facility would not meet the goal of increasing the total facility space for mission requirements without leasing more space.

Option C - Relocate to Other Military Base in Tennessee (Four other sites were considered to move TNARNG Aviation Units to):

- McGhee-Tyson ANG Base, Knoxville, Tennessee
- Memphis ANG Base, Memphis, Tennessee

- Arnold AFB, Tullahoma, Tennessee
- Fort Campbell, Kentucky

Each site would require new construction as well as a Permanent Change of Station (PCS) for over 100 full time employees. Arnold Air Force Base does not have tower capabilities. Currently there is no space available for construction at either the Knoxville or Memphis ANG Bases.

TABLE 3: SCREENING CRITERIA

Screening Criteria	Option A Continue Current Operations at VTS-S	Option B Stay at VTS-S and Improve Facilities	Option C Relocate to Nearby Military Base	Option D Relocate to Berry Field, Nashville IAP
Meets TNARNG Federal and State mission	No	No	No - Tullahoma, Tennessee	Yes
Federally owned or controlled (Type of Real Property action)	Yes	Yes	Yes	Yes
Meets budget constraints	No	No	No	Yes
Provides adequate space for the project	No	No	No - Memphis & Knoxville, Tennessee	Yes
Has utility infrastructure near the site	Yes	Yes	Yes	Yes
Adequate access to major roads/Interstate	Yes	Yes	Yes	Yes
Readily adaptable buildings	No	No	No	Yes
Meets AT/FP standards	Yes	Yes	Yes	Yes
Located near within 50 Miles of VTS-S	Yes	Yes	No - Memphis & Knoxville, Tennessee	Yes

2.3 Preferred Alternative

Based on the analysis of the sites considered, the Preferred Alternative (Option D) is the only location that meets all of the TNARNG's needs and therefore the only action alternative that will be brought forward for analysis. Option D is described as:

Option D. Relocate to 118th Wing Facilities: TNANG, Nashville International Airport. This is the proposed alternative.

2.4 No Action Alternative

Pursuant to NEPA and the Council of Environmental Quality (CEQ) regulation, the No Action alternative (Option A) must be considered. The No Action alternative serves as a baseline against which the environmental impacts of the other alternatives are measured. If the No Action alternative were selected, the requested TNARNG Aviation Assets, presently located at Smyrna Aviation (VTS-S), transfer to Berry Field, Nashville International Airport would not be implemented. Under this alternative, the purpose and need described in Chapter 1 would not be met. Option A is described as:

Option A. Continue Operating on VTS-Smyrna. The current facilities do not meet the minimum space and mission requirements for aviation, impacting the units ability to meet current and future missions and readiness standards. Therefore in order to maintain operations from VTS-S, a new readiness Center and AASF would need to be constructed at an estimated cost of $74 million.

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SECTION 3 AFFECTED ENVIRONMENT

3.1 Location Description

The general location for this Project is in Middle Tennessee within the political boundaries of Davidson County. Nashville is the largest city within Davidson County and is the capital city for the State of Tennessee. Nashville and Davidson County operate under a Metropolitan Government Charter form of local government that includes Nashville and unincorporated areas outside the corporate limits of the City of Nashville. The corporate name is Metropolitan Government of Nashville and Davidson County. Davidson County is the hub for the Nashville Metropolitan Statistical Area (MSA). Surrounding counties included in the MSA are Cannon, Cheatham, Davidson, Dickson, Hickman, Macon, Maury, Robertson, Rutherford, Smith, Sumner, Trousdale, Williamson and Wilson.

Specifically, the Project is located within the boundary of the Nashville International Airport. By Airport Authority Charter, the Metropolitan Nashville Airport Authority operates a commercial service and general aviation airport within the corporate boundaries of Davidson County known as the Nashville International Airport. Refer to Figure 3-1 below.

The Project parcel consists of 34 acres of irregularly-shaped land located within the boundaries of the Nashville Tennessee Air National Guard Base (TNANG). The TNANG is situated on property leased by the MNAA to the United States Air Force under a long term arrangement, and subsequently licensed to the State of Tennessee for operation of an air national guard training facility. In context of the Nashville International Airport, the subject property is located on the southern side of the airport facility. The parcel is located immediately adjacent to and northwest of the intersection of Murfreesboro Road and Donelson Pike, and about 2 miles south of Interstate-40. The site coordinates are 36°-06'-35" N latitude, and 86°-40'-33" W longitude. TNANG facilities bound the parcel to the north and east, and Nashville International Airport operations to the west and south.

A current installation map and facility inventory is depicted by Figure 3-2 and Table 4 below. Presently there are multiple buildings located on the subject property as well as petroleum, oil, and lubricant (POL) area, paved aircraft corrosion control pad, wash rack and paved aircraft parking apron. This facility has been operated continuously as an Air National Guard Base since 1952. All aircraft maintenance and storage activities were terminated in 2012 and the property since utilized for offices, classrooms and general storage. Commercial and/or undeveloped land extends south and east of the Property beyond Murfreesboro Road and Donelson Pike, respectively.

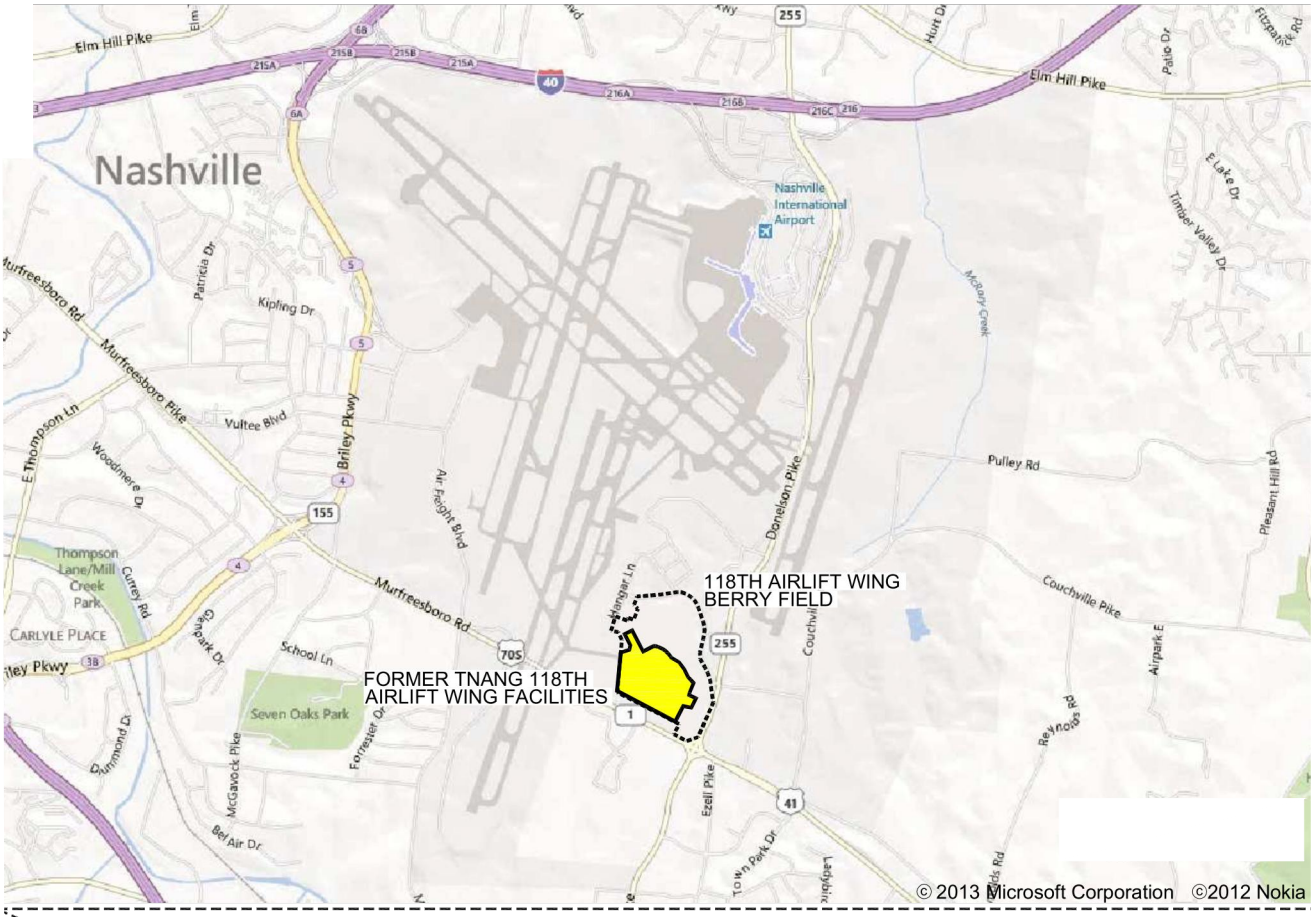
TABLE 4: BERRY FIELD FACILITIES AVAILABLE FOR USE

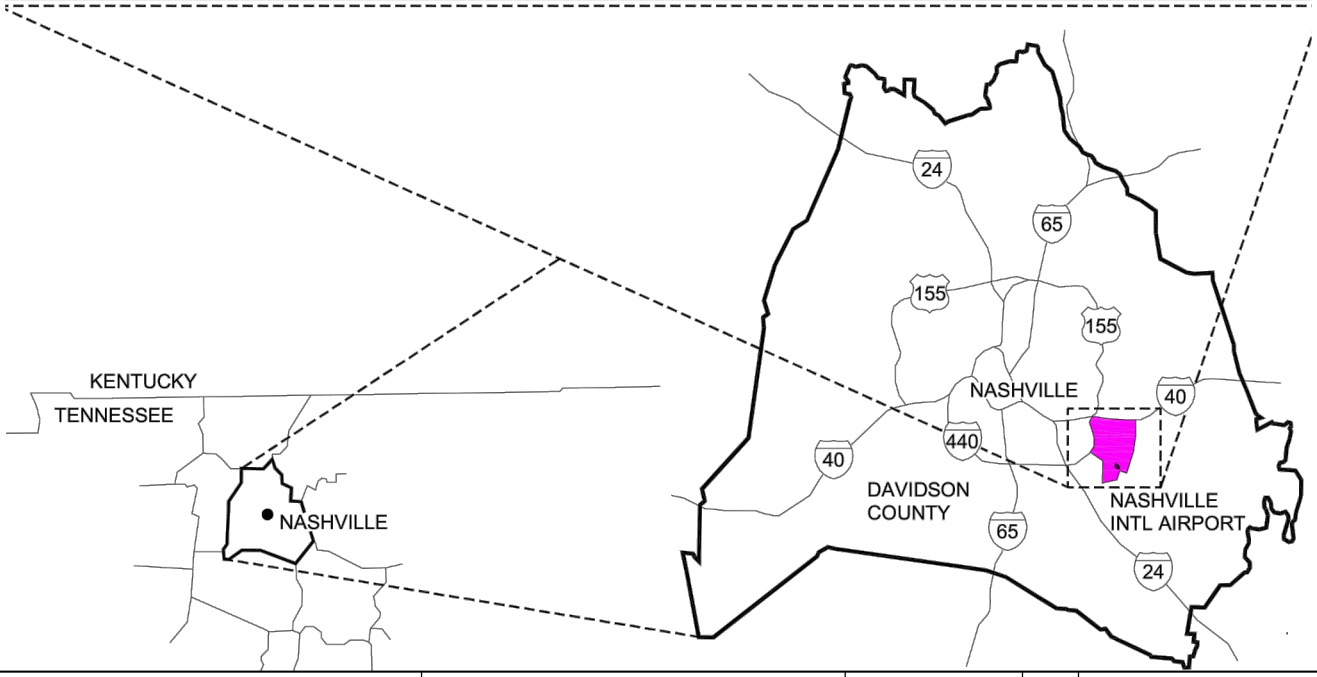
PHYSICAL CONDITION REPORT

These Facilities are located on the 118th Wing (Nashville IAP, TN) 240 Knapp Blvd. Nashville, TN 37217 and available for use by the TN Army National Guard – Aviation Division with facility conditions as indicated.

ACILITY #	RUID	DESCRIPTION	UNIT QUANITY	U M	CONDITION CODE	Q RATING	BUILT BY
702	396424	ACFT CORROSION CONTROL	2260	SF	5	100	ANG
721	396432	TECH TNG CLASSROOM	60284	SF	2	100	ANG
722	1064472	MISC O/RECREATION FACILITY	1	EA	1	100	ANG
723	396433	RES FORCES A-E TNG	10829	SF	3	100	ANG
734	392612	CORROSION CON UTILY STOR	246	SF	2	100	ANG
741	392699	MAINT DOCK, FL SYS	22533	SF	2	100	ANG
742	392700	COMPRESSED AIR PLANT BLDG	217	SF	1	100	ANG
757	392706	MAINT HG	106940	SF	1	100	ANG
758	1064485	MISC O/RECREATION FACILITY	1	EA	1	100	ANG
759	1064510	COVERED WALKWAY	72	SY	1	100	ANG
101	395131	LIQUID FUEL TRUCK FILL STAND	2	OL	2	100	ANG
103	395133	OPS STORAGE JET FUEL	20000	GA	2	100	ANG
104	395134	OPS STORAGE JET FUEL	20000	GA	2	100	ANG
105	395135	OPS STORAGE JET FUEL	20000	GA	2	100	ANG
106	395136	OPS STORAGE JET FUEL	20000	GA	2	100	ANG
107	1059485	EXTERIOR AREA LIGHTING(POL)	4	EA	1	100	ANG
200	1158851	APRON LIGHTING	24	EA	1	100	ANG
220	396392	SECURITY FENCE	1163	LF	1	100	ANG
400	396400	APRON	116689	SY	2	100	ANG
414	396414	REFUELER VEHICLE PARKING	1061	SY	2	100	ANG

ONDITION CODES:
CODE 1: USABLE
CODE 2: USABLE CLASS B Substandard)
CODE 3: FORCE USE (Substandard)
CODE 4: STERILE
CODE 5: Facilities Committed to Congress





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Title :
Vicinity Map
Air National Guard Base/Berry Field
Nashville, TN
Source : EBS Survey No. S00113660-13 (2013)

Scale: NTS

Project :
Re-alignment of Army Aviation Support Facilities at Air National Guard Base/Berry Field

Proj. # 20100247

Date: 08/15/13

Figure. No. 3-1

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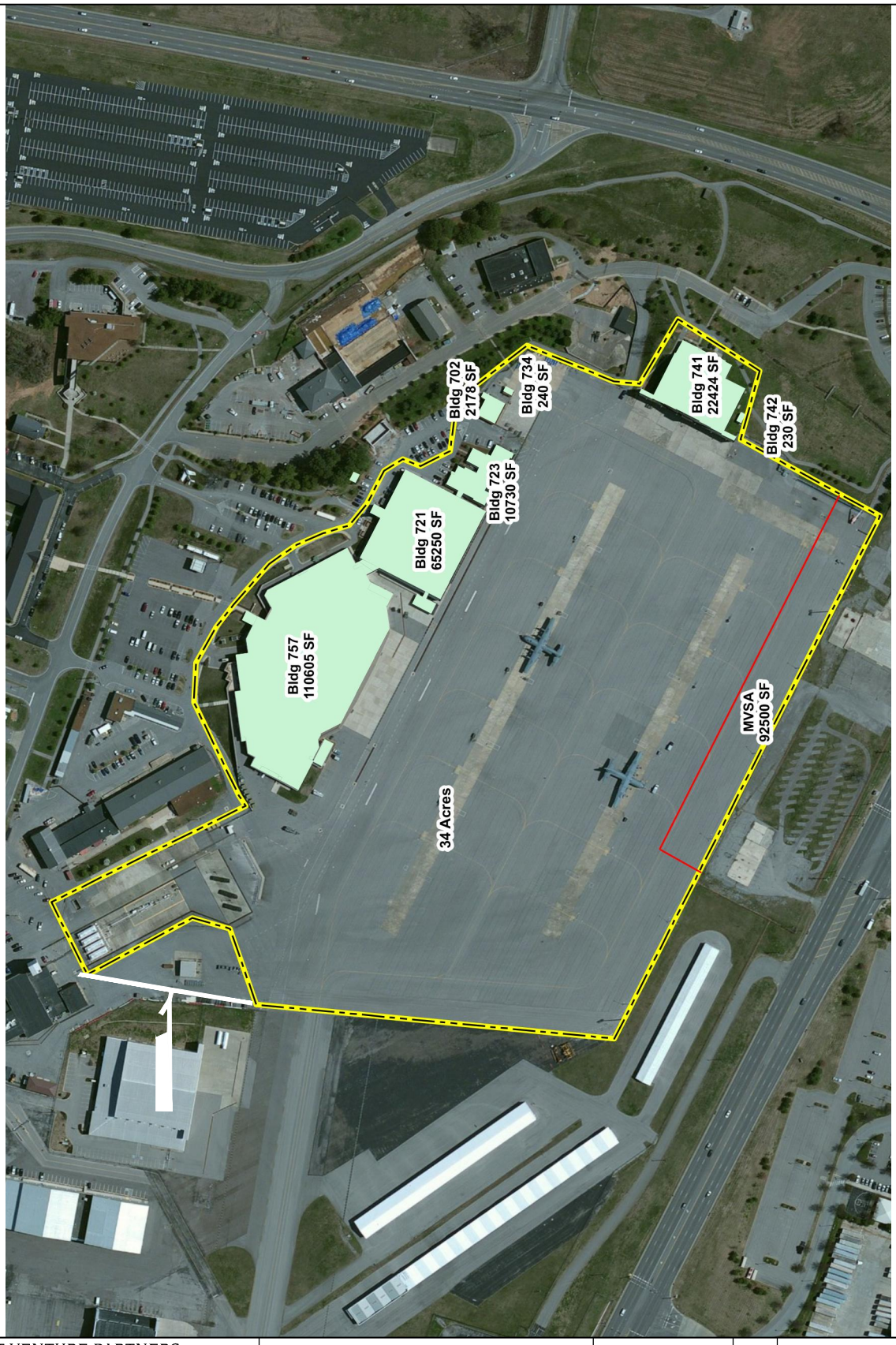

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Title :
Site Map
Air National Guard Base/Berry Field
Nashville, TN
Source : EBS Survey
No. S00113660-13 (2013)

Scale: NTS

Project :
Re-alignment of Army Aviation Support Facilities at Air National Guard Base/Berry Field

Proj. # 20100247
Date: 08/15/13

Figure. No. 3-2

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3.2 Land Use

Land use on and off the Nashville International Airport is regulated by two separate but interrelated agencies. Metropolitan Nashville Airport Authority regulates land use on the NIA, and the Metropolitan Nashville Planning Commission for use off installation.

On-airport property development and use is regulated through the Metropolitan Nashville Airport Authority Land Use Development Plan. This plan provides information for development of the FAA Airport Layout Plan. Uses of on-airport property are heavily influenced by various FAA airport planning and development requirements some of which are specified in the following documents.

- FAA Advisory Circular (AC) 150/5070-6, Airport Master Plans.
- FAA Order 5100.38, Airport Improvement Program Handbook.
- FAA Order 5190.6, Airport Compliance Manual.
- 49 US Code 471, Airport Development.
- FAA AC 150/5200-1, Noise Control and Compatibility Planning for Airports.
- Federal Aviation Regulation Part 77, Objects Affecting Navigable Airspace.
- FAA AC 150/1500-17, Land Acquisition and Relocation Assistance for Airport Improvement Program Assisted Projects.
- FAA AC 150/5200-33, Hazardous Wildlife Attractants On or Near Airports.
- FAA AC 150/5200-34, Construction or Establishment of Landfills Near Public Airports.

Current airport land use is depicted on Figure 3-3. At the present and in the forecast future, the Project parcel is reserved for military use. Airport land use is coordinated with the Metro Nashville Planning Commission, who exerts authority over zoning and planning within Davidson County.

Current off-installation land use in the vicinity of the project (Figure 3-4) includes commercial/residential development to the east and south. Although this land use is regulated by the Metro Planning Commission, FAA requirements influence such development. Air navigation obstructions, noise, wildlife attractants and aircraft safety are of particular concern.

3.3 Air Quality

Two primary laws apply to air quality: NEPA, and the Clean Air Act (CAA). As a federal agency, the DoD is required under NEPA to review any proposed project that has the potential to affect air quality. Air quality is determined by the type and amount of pollutants emitted into the atmosphere, the size and topography of the air basin, and the prevailing meteorological conditions. The levels of pollutants are generally expressed on a concentration basis in units of parts per million (ppm) or micrograms per cubic meter (µg/m3). The need for an air quality assessment to satisfy NEPA depends on the nature of the project, the project area's attainment status, and the size of the operation.

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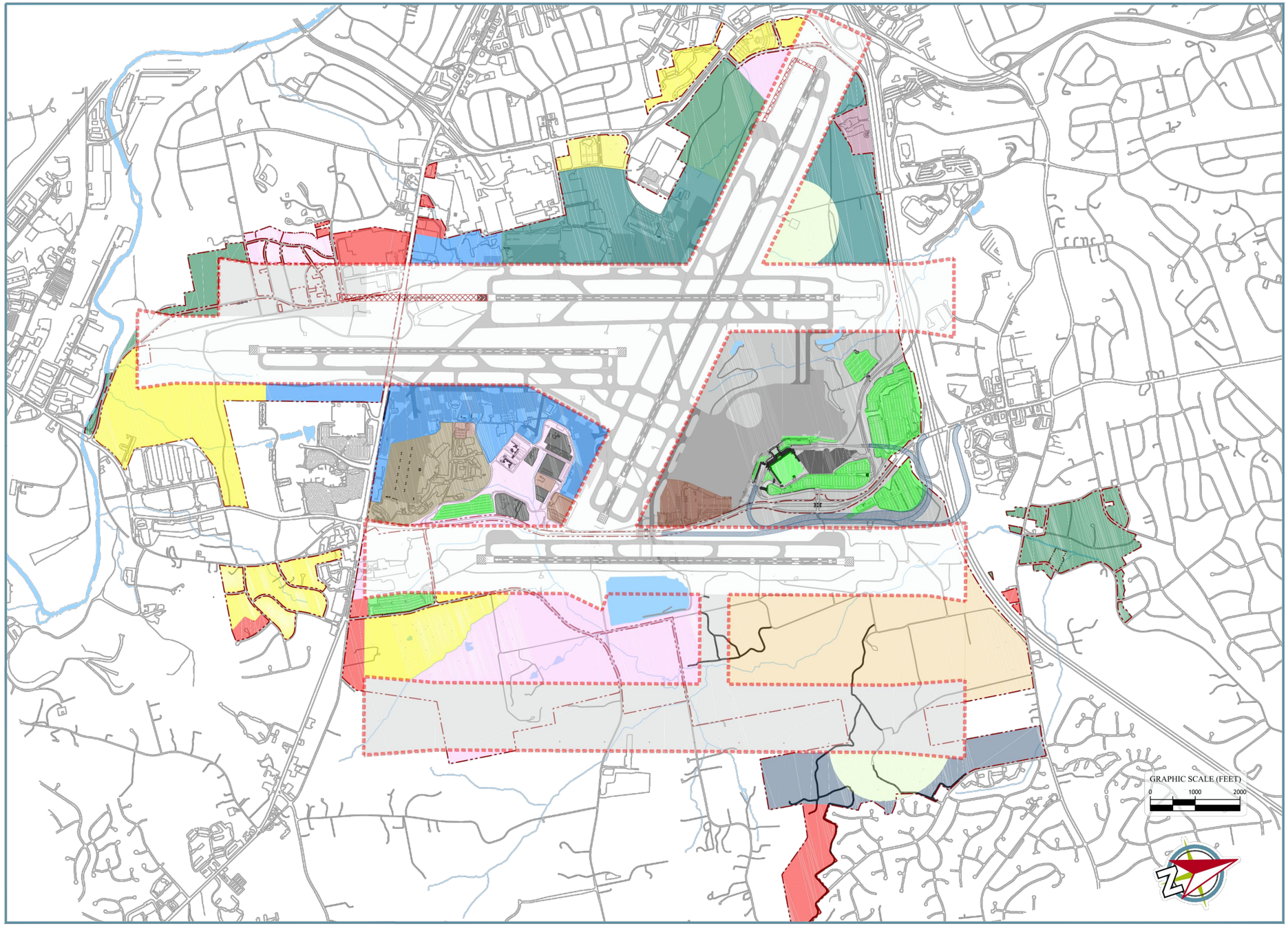

Nashville International Airport

ARMSTRONG

LEGEND

- Airport Property Boundary
- Airfield
- Terminal Area
- General Aviation
- Air Cargo/Aircraft Maintenance
- Military
- Airport Support
- Airport Parking
- Aviation Related (Does Not Include Public Roadways)
- Potential Airfield (Planned) Development
- Navaid
- Commercial Development
- Office/Business Development
- Rental Car
- Open Space
- Planned Roadway Improvements
- Planned Runway & Taxiway Improvements
- Water Bodies
- Acquisition for Aviation Development
- Future Terminal/ CONRAC Area

Figure 5-2
On-Airport Land Use

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Title :
Landuse
Air National Guard Base/Berry Field
Nashville, TN
Source : Master Plan Update
WP No. 4 March 2013

Scale: NTS

Project :
Re-alignment of Army Aviation Support Facilities at Air National Guard Base/Berry Field

Proj. # 20100247
Date: 08/15/13
Figure. No. 3-3

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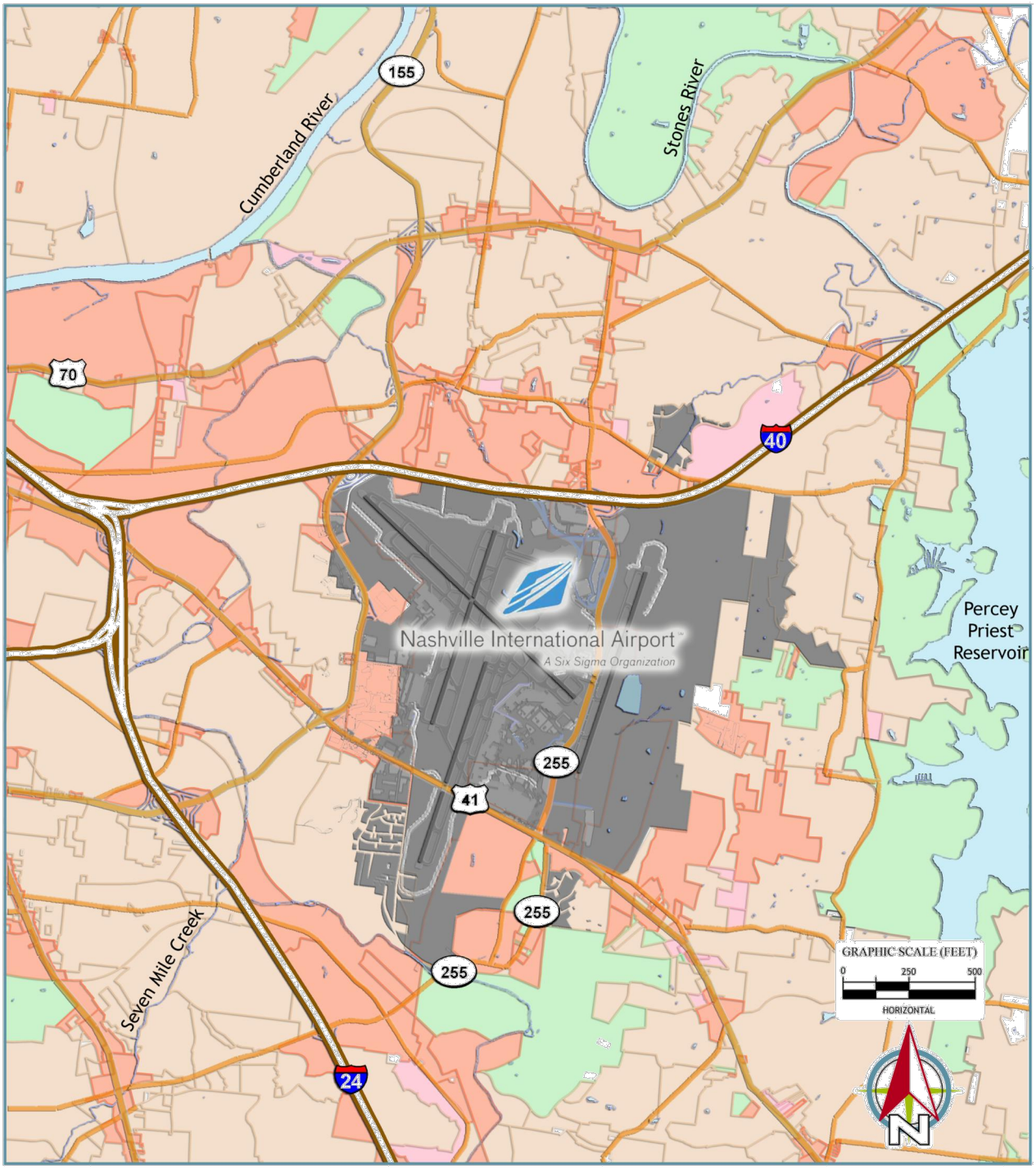

LEGEND

- Residential
- Agricultural
- Airport Property
- Commercial / Industrial / Warehouse / Distribution
- Mixed Use

Figure 2-37
Zoning Map

SOURCE: http://maps.nashville.gov/mcsp/
http://maps.nashville.gov/propertykiva/site/main.htm

ARMSTRONG

Nashville International Airport
A Six Sigma Organization

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Title :
Zoning and Transportation Routes Map
Nashville International Airport
Source : MNAA Master Plan Update WP No. 1 March 2013

TENNESSEE ARMY NATIONAL GUARD

Scale: NTS

Project :
Re-alignment of Army Aviation Support Facilities at Air National Guard Base/Berry Field

Proj. # 20100247
Date: 08/15/13

Figure. No. 3-4

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Guidelines for regulating air quality have been established by the CAA. All implementation and enforcement of these guidelines is the responsibility of the United States Environmental Protection Agency (EPA). The CAA Amendments of 1990 include provisions to ensure that emissions from federally funded actions within nonattainment areas comply with the goals and objectives of the State Implementation Plan (SIP) for the state in which the project is located. In accordance with the CAA Amendments of 1990, all areas in Nashville are designated with respect to compliance or degree of noncompliance with the National Ambient Air Quality Standards (NAAQS). These standards represent the maximum allowable atmospheric concentration that may occur without negatively affecting public health and welfare, with a reasonable margin of safety. The CAA established NAAQS for six pollutants, termed "criteria pollutants." These include: carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO2), ozone (O3), particulate matter (PM-10 and PM-2.5), and sulfur dioxide (SO2). Designations include attainment, nonattainment and maintenance. An area with air quality better than the NAAQS is designated as "attainment," while one with air quality worse than the NAAQS is designated as "nonattainment." Nonattainment areas are further classified as extreme, severe, serious, moderate, and marginal. A maintenance area is one previously designated "nonattainment" but re-designated as a "maintenance area" because air pollution levels have improved above levels that would place the area in nonattainment status. An area may remain in maintenance status for up to 20 years before being re-designated as attainment.

In April 2004, the EPA developed an eight-hour standard for ozone and on December 29, 2004, the Nashville Area Metropolitan Planning Organization (MPO) region entered into an Early Action compact to defer a nonattainment designation for ozone long enough to "fast-track" towards air quality attainment. As of December 12, 2011, the counties within the Nashville Area MPO are considered by the EPA to be in compliance with NAAQS (Table 5).

Under the Clean Air Act, the USEPA requires each State to develop a State Implementation Plan (SIP) that regulates air emissions within the State. The Tennessee SIP was given legal standing through the Tennessee Air Quality Act (TN Code Annotated 68-201-101 et seq), and TN Rules (Chapter 1200-3-1 et seq). Implementation plans set forth requirements to regulate air emissions within Air Quality Districts. Nashville and Davidson County has been identified as an Air Quality District and has adopted a local code to implement provisions of the SIP (Metro Code Chapter 10.56).

TABLE 5: NAAQS DATA

National Ambient Air Quality Standards (NAAQS)

The Clean Air Act, which was last amended in 1990, requires EPA to set National Ambient Air Quality Standards (40 CFR part 50) for pollutants considered harmful to public health and the environment. The Clean Air Act identifies two types of national ambient air quality standards. ***Primary standards*** provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children, and the elderly. ***Secondary standards*** provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

EPA has set National Ambient Air Quality Standards for six principal pollutants, which are called "criteria" pollutants. They are listed below. Units of measure for the standards are parts per million (ppm) by volume, parts per billion (ppb) by volume, and micrograms per cubic meter of air ($\mu g/m^3$).

Pollutant [final rule cite]		Primary/ Secondary	Averaging Time	Level	Form
Carbon Monoxide [76 FR 54294, Aug 31, 2011]		primary	8-hour	9 ppm	Not to be exceeded more than once per year
			1-hour	35 ppm	
Lead [73 FR 66964, Nov 12, 2008]		primary and secondary	Rolling 3 month average	0.15 $\mu g/m^3$ (1)	Not to be exceeded
Nitrogen Dioxide [75 FR 6474, Feb 9, 2010] [61 FR 52852, Oct 8, 1996]		primary	1-hour	100 ppb	98th percentile, averaged over 3 years
		primary and secondary	Annual	53 ppb (2)	Annual Mean
Ozone [73 FR 16436, Mar 27, 2008]		primary and secondary	8-hour	0.075 ppm (3)	Annual fourth-highest daily maximum 8-hr concentration, averaged over 3 years
Particle Pollution Dec 14, 2012	$PM_{2.5}$	primary	Annual	12 $\mu g/m^3$	annual mean, averaged over 3 years
		secondary	Annual	15 $\mu g/m^3$	annual mean, averaged over 3 years
		primary and secondary	24-hour	35 $\mu g/m^3$	98th percentile, averaged over 3 years
	PM_{10}	primary and secondary	24-hour	150 $\mu g/m^3$	Not to be exceeded more than once per year on average over 3 years
Sulfur Dioxide [75 FR 35520, Jun 22, 2010] [38 FR 25678, Sept 14, 1973]		primary	1-hour	75 ppb (4)	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years
		secondary	3-hour	0.5 ppm	Not to be exceeded more than once per year

as of October 2011

(1) Final rule signed October 15, 2008. The 1978 lead standard (1.5 µg/m3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

(2) The official level of the annual NO2 standard is 0.053 ppm, equal to 53 ppb, which is shown here for the purpose of clearer comparison to the 1-hour standard.

(3) Final rule signed March 12, 2008. The 1997 ozone standard (0.08 ppm, annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years) and related implementation rules remain in place. In 1997, EPA revoked the 1-hour ozone standard (0.12 ppm, not to be exceeded more than once per year) in all areas, although some areas have continued obligations under that standard ("anti-backsliding"). The 1-hour ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is less than or equal to 1.

(4) Final rule signed June 2, 2010. The 1971 annual and 24-hour SO2 standards were revoked in that same rulemaking. However, these standards remain in effect until one year after an area is designated for the 2010 standard, except in areas designated nonattainment for the 1971 standards, where the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standard are approved.

See historical tables of NAAQS standards

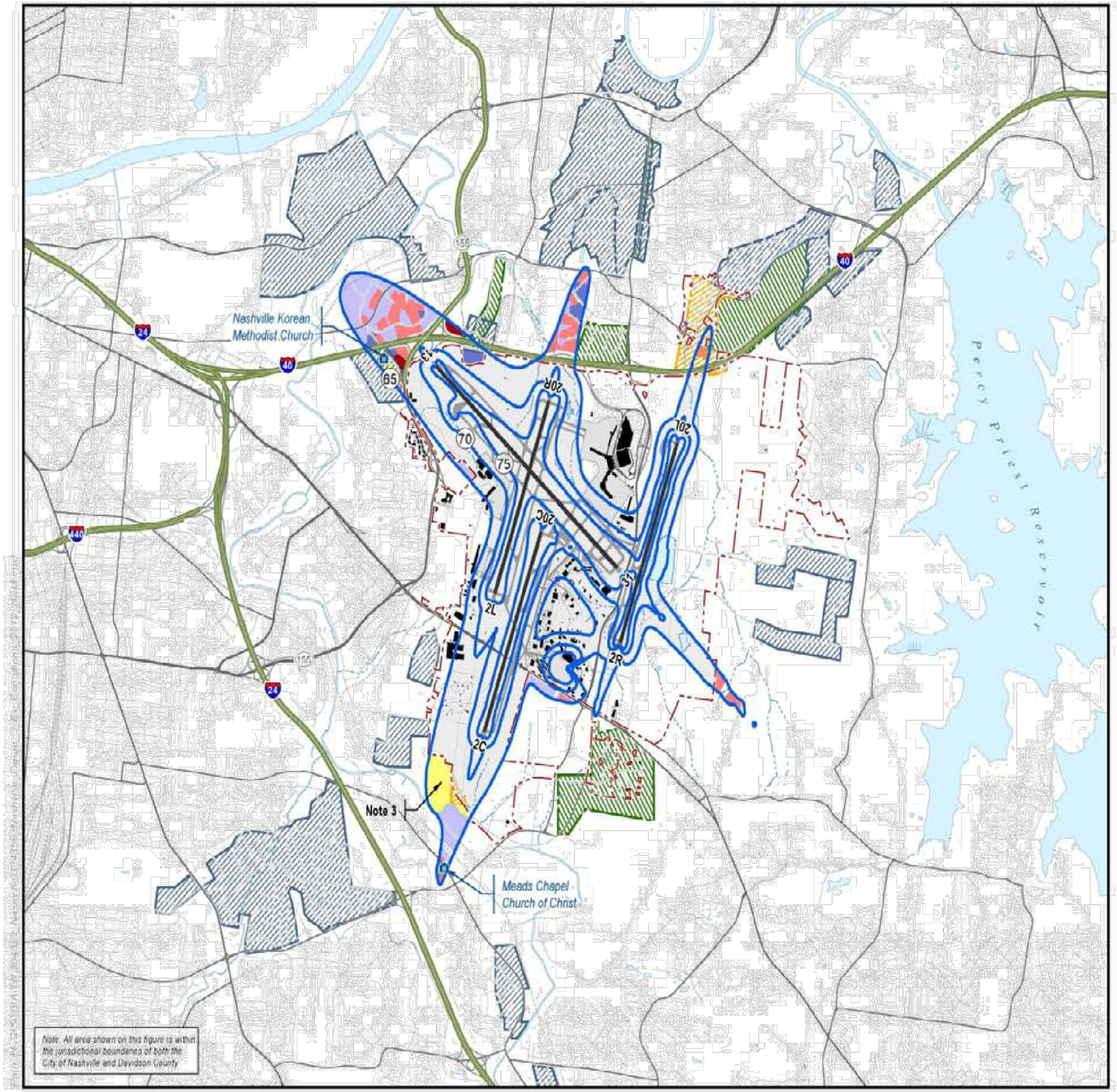
3.4 Noise

The MNAA recently completed a FAA Part 150 Noise Exposure Map (NEM) Update. The NEM Update was submitted to the FAA in December of 2012 and approved by the FAA on February 4, 2013. The FAA determined that the NEMs submitted for BNA comply with applicable requirements of Title 14 Code of Federal Regulations (CFR) Part 150. The NEM update is available on the MNAA's website and administrative offices.

The most fundamental elements of the NEMs submission are cumulative exposure noise contours for annual operations at the airport for: (1) data representing the year of submission and (2) data representing a forecast year at least five years from the year of submission.1 The year of submission for the NEMs update is 2012. Therefore, the existing conditions noise contours are for 2012 and the 5-year forecast case contours are for 2017.Nashville International Airport 14 CFR Part 150 Noise Exposure Map Update, December 2012. Figure 3-5 and Figure 3-6 present the NEM figures for existing (2012) and five-year forecast (2017) conditions, respectively. These are the official NEMs that the MNAA submitted under Part 150 for appropriate FAA review and determination of compliance, pursuant to §150.21. The two figures identify the following items, as required in Part 150 (in the sections cited):

- Runway layout as required in §A150.103(b)(1).
- Calendar year 2012 and 2017 noise contours (for 65, 70, and 75 dB DNL) resulting from aircraft operations, as required in §A150.101(e)(3).
- Outline of the airport boundaries, as required in §A150.101(e)(4) and §A150.103(b)(1).
- Non-compatible land uses within the contours, as required in §A150.101(e)(5), including Part 150 land use categories and discrete sensitive land uses. As noted on the figures, the only non-compatible land uses within the 65 dB DNL contours are residential dwelling units to the east of the airport under the approach to Runway 31 and a place of worship on the approach to Runway 2L (the Meads Chapel Church of Christ) (1).
- Locations of noise sensitive public buildings, as required in §A150.101(e)(6).
- Some RNP procedures were in place and modeled in the 2012 NEM, but SIDS and STARS were included in the 2017 NEM. Details and a more in-depth discussion are available in Appendix B.
- It is important to note that there are no properties within the contours that are on or eligible for inclusion in the NRHP, as required in §A150.101(e)(6).
- It is important to note that the entire area depicted on the map (the boundaries of which extend well beyond the 65 dB DNL contours), is within the jurisdictional boundaries of Metro Government of Nashville and Davidson County, as required in §A150.105.

(1) As noted on Figures 3-5 and 3-6, one other place of worship within the 65 dB DNL contour (the Nashville Korean Methodist Church) is compatible because the owner declined a prior MNAA offer for sound-insulation treatment, and a currently undeveloped residentially zoned area south of the airport under the approach to Runway 2L is in the process of being rezoned to a compatible "industrial, warehousing, and distribution" category.



Metropolitan Nashville Airport Authority

65/75 dB DNL Contours
Airport Property
Runway
Taxiway
Buildings
Apron
Interstate
US / State Highways
Collector Roads
Local Roads
Railroad
Water Bodies
River / Streams
County Boundary
Residential
Commercial
Mobile Home
Manufacturing and Production
Transient Lodging
Public Use
Recreational / Open Space

Previously Approved Mitigation Areas

Transition Area
Sound Insulation / Residential Property Sales Assistance Program
Acquisition of Residential Uses in Approach Areas

Notes:
1. The only discrete noise sensitive properties within the 65 dB DNL contour are the two labeled places of worship. The Nashville Korean Methodist Church is compatible because the owner declined a prior MNAA offer for sound-insulation treatment.
2. There are no properties on or eligible for inclusion on the National Register of Historic Places within the 65 dB DNL contour.
3. The designated area is undeveloped and in the process of being rezoned to a compatible "Industrial, Warehousing, and Distribution" category.

Data Source: Metropolitan Nashville Airport Authority; Metro Davidson County Planning; Environmental Systems Research Institute (ESRI).

0 4,000 8,000 Feet

N

Existing Conditions (2012) Noise Exposure Map

HARRIS MILLER MILLER & HANSON INC.

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Title :
MNAA 2012 Existing Noise Exposure Map
Nashville International Airport
Source : MNAA Master Plan Update HMMH Study 2013

Scale: NTS

Project :
Re-alignment of Army Aviation Support Facilities at Air National Guard Base/Berry Field

Proj. # 20100247
Date: 08/15/13

Figure. No. 3-5

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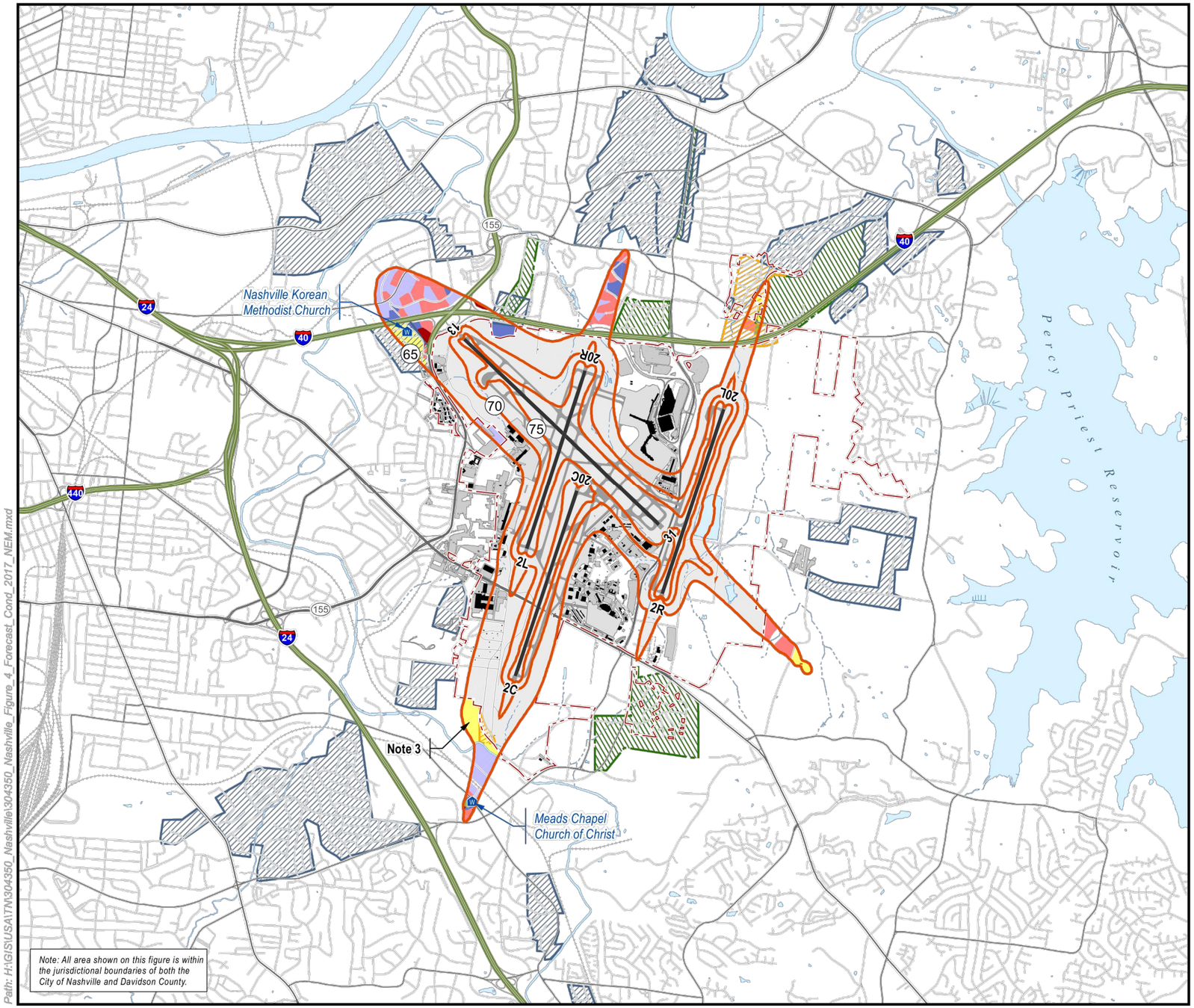

Note: All area shown on this figure is within the jurisdictional boundaries of both the City of Nashville and Davidson County.

Path: H:\GIS\USA\TN\304350_Nashville\304350_Nashville_Figure_4_Forecast_Cond_2017_NEM.mxd

Metropolitan Nashville Airport Authority℠

- 65-75 dB DNL Contours
- Airport Property
- Runway
- Taxiway
- Buildings
- Apron
- Interstate
- US / State Highways
- Collector Roads
- Local Roads
- Railroad
- Water Bodies
- River / Streams
- County Boundary
- Residential
- Commercial
- Mobile Home
- Manufacturing and Production
- Transient Lodging
- Public Use
- Recreational / Open Space

Previously Approved Mitigation Areas

- Transition Area
- Sound Insulation / Residential Property Sales Assistance Program
- Acquisition of Residential Uses in Approach Areas

Notes:
1. The only discrete noise-sensitive properties within the 65 dB DNL contour are the two labeled places of worship. The Nashville Korean Methodist Church is compatible because the owner declined a prior MNAA offer for sound-insulation treatment.
2. There are no properties on or eligible for inclusion on the National Register of Historic Places within the 65 dB DNL contour.
3. The designated area is undeveloped and in the process of being rezoned to a compatible "Industrial, Warehousing, and Distribution" category

Data Source: Metropolitan Nashville Airport Authority, Metro Davidson County Planning, Environmental Systems Research Institute (ESRI),

0 4,000 8,000 Feet

N

Forecast Condition (2017) Noise Exposure Map

Figure: 4

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Title :
MNAA 2017 Future Noise Exposure Map
Nashville International Airport
Source : MNAA Master Plan Update HMMB Study 2013

Scale: NTS

Project :
Re-alignment of Army Aviation Support Facilities at Air National Guard Base/Berry Field

Proj. # 20100247
Date: 08/15/13
Figure. No. 3-6

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3.5 Topography, Soils and Geology

3.5.1 Topography

The Project is situated within the Nashville Central Basin, an oval-shaped lowland that is about 50 to 60 miles wide and 80 to 90 miles long on a northeast-southwest axis. The innermost part of the basin is nearly flat. Areas along the outer basin, which is where the Project is located, have considerably more relief due to numerous rounded hills comprised of more resistant rocks that exist in these areas. Throughout the Central Basin, karst features such as sink holes and caves influence the topography due to the dominant carbonate lithology of the bedrock formations.

The topography specific to southeast Davidson County is characterized by gently rolling hills. During airport construction activities, the Project vicinity was leveled and filled in to create a relatively flat surface with a slight downward slope toward the north. The approximate site elevation at the Property ranges from about 570 feet above mean sea level at the northern boundary to about 600 feet above mean sea level at the southern boundary. There are no recognizable surface water features on the property. Storm water drainage from the property eventually flows into McCrory Creek, which flows into Stones River and eventually to the Cumberland River.

3.5.1 Soils

Soils in the Project vicinity formed in material weathered from the underlying limestone bedrock, and in general are deep, well-drained soils formed in undulating to hilly topography that have moderate permeability. Soils at the Project are primarily comprised of Stiversville-Urban land, with a small area of Maury-Urban land complex at the southwest corner of the aircraft apron. Stiversville soils formed on ridges and are generally about 4 to 6 feet thick over thinly bedded limestone bedrock. Stiversville soils are comprised of dark brown loam with a subsoil of reddish-brown clay loam. Maury soils formed in old alluvium and in the underlying residuum of limestone on uplands. The depth to limestone bedrock is about 5 to 16 feet below the ground surface (bgs), and the soils are comprised of dark brown silt loam overlying reddish-brown silty clay loam subsoil. Yellowish-red, firm clay is found at depth beneath the silty clay loam subsoil. Urban land consists of soils that have been covered with buildings or have been paved.

3.5.2 Geology

The Nashville Basin encompasses the Ordovician-aged geological segment within which the City of Nashville and the Project are situated. The Central Basin resulted from the erosion of a low-relief structural dome that represents the southern end of the

Davidson County, Tennessee (TN037)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AmB	Armour silt loam, 2 to 5 percent slopes	251.8	2.9%
AmC	Armour silt loam, 5 to 12 percent slopes	32.2	0.4%
AmC3	Armour silt loam, 5 to 15 percent slopes, severely eroded	114.7	1.3%
Ar	Arrington silt loam	268.4	3.1%
BbD	Barfield-Rock outcrop complex, 5 to 20 percent slopes	51.5	0.6%
BvB	Bradyville silt loam, 2 to 5 percent slopes	17.7	0.2%
CaB	Capshaw silt loam, 2 to 5 percent slopes	2.5	0.0%
HmC	Hampshire silt loam, 5 to 12 percent slopes	319.6	3.6%
HmD	Hampshire silt loam, 12 to 20 percent slopes	611.7	7.0%
Ld	Lindell silt loam	307.3	3.5%
Ln	Lindell-Urban land complex	192.0	2.2%
MaB	Maury silt loam, 2 to 7 percent slopes	108.3	1.2%
McB	Maury-Urban land complex, 2 to 7 percent slopes	620.4	7.1%
Ne	Newark silt loam	10.4	0.1%
Pt	Pits	77.5	0.9%
RtC	Rock outcrop-Talbott complex, 5 to 15 percent slopes	214.2	2.4%
Se	Sequatchie fine sandy loam	3.1	0.0%
StC	Stiversville loam, 3 to 12 percent slopes	731.4	8.3%
StD	Stiversville loam, 12 to 25 percent slopes	777.1	8.8%
SvD	Stiversville-Urban land complex, 3 to 25 percent slopes	2,623.7	29.8%
TbC	Talbott silt loam, 2 to 10 percent slopes	94.4	1.1%
TrC	Talbott-Rock outcrop complex, 5 to 15 percent slopes	630.3	7.2%
TuC	Talbott-Urban land complex, 3 to 12 percent slopes	655.2	7.5%
W	Water	76.8	0.9%
Totals for Area of Interest		**8,792.1**	**100.0%**

Nashville International Airport™
A Six Sigma Organization

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Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Units

Water Features
- Streams and Canals

Transportation
- Rails
- US Routes
- Major Roads
- Local Roads

Figure 2-34
Soils Map

SOURCE: National Resources Conservation Service, Web Soils Survey, 2011.

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Title :
Soils Map
Nashville International Airport
Source : MNAA Master Plan Update
WP No. 1 March 2013

Scale: NTS

Project :
Re-alignment of Army Aviation Support Facilities at Air National Guard Base/Berry Field

Proj. # 20100247
Date: 08/15/13

Figure. No. 3-7

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Cincinnati Arch. The center of the Central Basin follows the structural axis of the arch that regionally trends toward the northeast. The bedrock formations within the basin are generally flat-lying or gently dip away from the central arch at a rate of about 15 feet per mile. Older formations are exposed at the surface in the center of the basin, and the surface outcrops become progressively younger from the center of the basin in all directions toward the Highland Rim Plateau. The bedrock formations within the Central Basin are predominantly Ordovician carbonates that were fractured in response to formation of the structural dome.

The Project is underlain by the lower two members of the middle Ordovician-age Hermitage Formation to a depth of 50 to 90 feet below ground surface (bgs). This formation is comprised of several limestone units containing varying amounts of sand, shale, and silt; a thin bed of bentonite divide the two units present at the property from one another. The underlying Carters Limestone is the uppermost member of the Stones River Group. The Carters Limestone is a fine-grained limestone that is up to 90 feet thick and is divided into two lithologically similar units that are separated by a regionally extensive bentonite bed of up to 1 foot thick. The basal Lebanon Limestone is a very fine-grained limestone that ranges in thickness from 75 to 115 feet.

During environmental sampling at a site, within TNANG property, north of the Project, bedrock consisting of the middle Ordovician Hermitage Formation was encountered at depths ranging from 6.5 to 14.5 feet bgs. Bedrock fragments collected during the investigation indicated that bedrock beneath the site is predominantly a medium gray limestone.

3.6 Water Resources

3.6.1 Surface Water

There are no recognizable surface water features on the Project site. Storm water drainage generally flows from the southeastern to the northwestern corners of the Project site discharging into McCrory Creek, which flows into the Stones River and eventually to the Cumberland River.

3.6.2 Groundwater

Groundwater in the Central Basin occurs in secondary openings created or enlarged by dissolution of the soluble limestone bedrock; the carbonate rocks have very little primary porosity. Although the openings are widespread in occurrence, they are irregularly distributed and/or interconnected, resulting in uneven distribution of groundwater supplies throughout Davidson County. Additionally, there is a decrease in the formation of solution networks with increasing depth, so there is very little useable groundwater at depths below 300 feet bgs. The largest and most productive groundwater formations tend to be those which are most massively bedded, and at depths of less than 100 feet bgs. The depth of the principal water-bearing aquifer in Davidson County ranges from 60 to 110 feet bgs.

The shallow water table at the property is anticipated to occur within the Hermitage Formation at a depth of about 40 to 50 feet bgs. Shale layers within the Hermitage Formation tend to restrict vertical groundwater movement, which makes the Hermitage a poor water-bearing unit and restricts local recharge to the underlying Carters Formation. Water within the unit tends to flow northeast toward McCrory Creek and its tributaries. The Carters Limestone is a massively bedded and relatively pure limestone, so it is considered to be a useable water-bearing unit in areas where the Hermitage does not restrict recharge to underlying formations. The Central Basin aquifer, at depths of about 60 to 100 feet bgs, is the principal water-bearing formation for large capacity wells in Davidson County. Because the

Hermitage Formation restricts recharge to underlying formations in the Project vicinity, groundwater resources are not used for potable water supplies in this area; rather, potable water is obtained from surface water sources. Groundwater may be used for other purposes such as commercial, industrial or irrigation in the property vicinity. One well, identified at the Nashville International Airport about ½ mile north of the Property, is not identified as a drinking water well in available records.
3.6.3 Floodplains

The Property is not situated within a recognized Flood Zone

3.6.4 Stormwater

Stormwater drainage from the Project discharges into an unnamed tributary of McCrory Creek yielding to McCrory Creek, which subsequently flows into the Stones River and eventually to the Cumberland River. Portions of McCrory Creek are designated as water quality limited for Siltation and Habitat Alteration, Low Desolved Oxygen and Nutrients, and E.Coli.

The Air National Guard Base currently operates under a Tennessee Department of Environment and Conservation issued General NPDES Permit for Storm Water Discharges Associated with Industrial Activity (TMSP), Industrial Sector S. Permit Tracking Number is TNR051762, issued January 20, 2011.
The wash rack oil/water separator has a diversion valve, and the Air Force currently holds Metro pre-treatment permit for discharge to storm sewer of wash water, runoff through valve to storm drainage.

3.6.5 Wetlands

The U.S. Army Corps of Engineers and U.S. Environmental Protection Agency (EPA) jointly define wetlands as "Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions."

No areas that exhibited wetland characteristics (surface water, low-lying areas, or hydrophytic vegetation) were observed at the property or on adjacent properties during site reconnaissance. Based on a review of the National Wetlands Inventory Map, there are no Federal wetlands located on the property.

3.7 Biological Resources

Biological resources include native or naturalized plants and animals and the habitats, including wetlands, in which they occur. Although the existence and preservation of biological resources are intrinsically valuable, these resources also provide essential aesthetic, recreational, and socioeconomic values to society. This section focuses on plant and animal species or vegetation types that typify or are important to the function of the ecosystem, are of special societal importance, or are protected under Federal or state law or statute. For purposes of this assessment, sensitive biological resources are defined as those plant and animal species listed as threatened or endangered by the U.S. Fish and Wildlife Service (USFWS) and/or TDEC or Tennessee Wildlife Resources Agency (TWRA).

Four categories of protection status are included in this section to discuss species with the potential to occur in the study area. These include; 1) Federal Listed Threatened and Endangered Species, 2) Candidate Species, 3) State Listed Threatened and Endangered Species, and 4) Special Concern Species. These categories are defined below.

Federal Listed Threatened and Endangered Species – The Endangered Species Act (ESA) of 1973 provides protection to species listed under this category. Endangered species are those species that are at risk for extinction in all or a large portion of their range. Threatened species are those that are likely to be listed as endangered in the near future.

Candidate Species – These are species that the USFWS is considering for listing as federally threatened or endangered but for which a proposed rule has not yet been developed. In this sense, candidates do not benefit from legal protection under the ESA. In some instances, candidate species may be emergency listed if the USFWS determines that the species population is at risk due to a potential or imminent impact. The USFWS encourages Federal agencies to consider candidate species in their planning process as they may be listed in the future.

State Listed Threatened and Endangered Species – A list of state-threatened and -endangered species is maintained by the State of Tennessee, and these species are protected from harassment, taking, and possession. Similar definitions of threatened and endangered in the Federal category apply to the state category. State and Federal lists often have considerable overlap. State categories do not provide Federal protection under the ESA but do provide a context for evaluating the sensitivity of habitats or communities.

Other Special Concern Species – Categories under this heading identify species that are listed by agencies and/or state Natural Heritage Programs. These are usually species of regional concern and may or may not be adopted as state or Federal threatened or endangered. At present, these species receive no legal protection under the ESA.

3.7.1 Vegetation

The Project study area falls within the Eastern Broadleaf Forest Province (Bailey 1995). This province is dominated by broadleaf deciduous forests that are dominated by a drought-resistant oak-hickory association. Widespread dominants are white oak, red oak, black oak, bitternut hickory, and shagbark hickory. The understory is usually well developed, often with flowering dogwood. Other understory species include sassafras and hophornbeam. The shrub layer is distinct, with some evergreens. Many wildflower species occur. Wetter sites typically feature an abundance of American elm, tuliptree, and sweet gum.

Only a small portion of the study area land is open space in which vegetation either occurs naturally or as a planned landscape. Remaining areas are either paved or contain structures. Vegetation in landscaped areas consists primarily of turfgrass lawns with tree and shrub foundation plantings near facility structures.

3.7.2 Wildlife

Wildlife at the Project is limited to those species adapted to high levels of human activity and disturbance. The high level of disturbance and shortage of habitat limits wildlife utilization to areas of open space. It is unlikely that wildlife use these open spaces for purposes other than occasional foraging since they are located so close to intensive development.

3.7.3 Threatened and Endangered Species

The Endangered Species Act of 1973 requires each federal agency to ensure that actions authorized, funded, or carried-out by that agency do not jeopardize continued existence of any endangered or threatened species, or result in destruction or adverse modification of any endangered or threatened species' habitat. Section 7 of the Act states that federal agencies must review their actions and, if those actions will affect a listed species or its habitat, they must consult with the USFWS. The USFWS has the responsibility of identifying, listing, and protecting endangered and/or threatened species.

According to the USFWS and a review of the list of rare species compiled by the Tennessee Division of Natural Areas in its Biotics Database, the species of animals and plants identified occur in Davidson County and could potentially be witnessed on, or in the vicinity of the Airport property. Additional species may be present in Davidson County, but have not been observed. For details of this study and a comprehensive list of Endangered, Threatened, and Species of Special Concern in Davidson County, please refer to the Nashville IAP Master Plan, Environmental Overview, 2013.

3.8 Cultural Resources

Cultural resources are any prehistoric or historic district, site, or building, structure, or object considered important to a culture, subculture, or community for scientific, traditional, religious or other purposes. They include archaeological resources (both prehistoric and historic), historic architectural resources, and traditional cultural resources. Only significant cultural resources (as defined in 36 CFR 60.4) are considered for potential adverse impacts from an action. Significant archaeological and architectural resources are either eligible for listing, or listed on, the National Register of Historic Places (NRHP). Significant traditional cultural resources are identified by Native American tribes or other groups, and may also be eligible for the NRHP.

On 21 November 1999, the Department of Defense (DoD) promulgated its American Indian and Alaska Native Policy which emphasizes the importance of respecting and consulting with tribal governments on a government-to-government basis. The Policy requires an assessment, through consultation, of the effect of proposed DoD actions that may have the potential to significantly affect protected tribal resources, tribal rights, and Indian lands before decisions are made by the services.

The ROI for cultural resources includes the Project area.

3.8.1 Historic Setting

Human occupation of the Project region probably began after 12,000 B.C. when inhabitants used a variety of animal and plant resources. As the climate gradually warmed, subsistence strategies shifted to a more localized seasonal harvest of plants and animals (Garrow & Associates 1992). Populations increased, and changes in resource use are reflected in the gradual shift from hunting and gathering to plant cultivation by about 1000 B.C. Ceramics were introduced and widespread exchange and trade networks developed throughout the southeastern United States. Large Hopewell mound sites with burials and exotic goods occurred within major drainages (Garrow & Associates 1992). The Pinson Mound Center in southwestern Tennessee was the largest and most complex in the region, with at least 12 mounds (Bense 1994).

By about A.D. 900, the complex sociopolitical systems of the Mississippian Period had developed. Many regional groups practiced maize agriculture, and developed a chiefdom level of government with an

elaborate ceremonial complex (Bense 1994). In the Nashville Basin, an intensive Mississippian occupation produced stone grave boxes, elaborate ceramics, and rectangular wall trench structures (Garrow & Associates 1992).

Much of Tennessee was uninhabited by Native Americans by the early 17th century, although Chickasaw groups claimed western Tennessee for hunting. There were also Cherokee settlements in the Appalachian region of the state (Garrow & Associates 1992). Presently there are no federally recognized Indian tribes or lands in Tennessee (Bureau of Indian Affairs [BIA] 1998).

French settlement of the Nashville area began in 1710, and bison hunting was an important industry in the region until the herds were exterminated. American settlers established a presence after the Revolutionary War, growing cotton and later tobacco, corn, and hemp (Garrow & Associates 1992). Tennessee attained statehood in 1796.

Following the arrival of the first steamboat in 1819, the Cumberland River became an important transportation route. Nashville became the state capitol in 1843 and served as the primary newspaper and publishing center of the South (Garrow & Associates 1992). Tennessee joined the Confederacy in 1861 with Nashville as an important supply center. However, it was the first major city in the South to fall to Union armies in 1862. After the Civil War, expansion of the railroads contributed to the city's growth.

During the 20th century, Nashville expanded as a center for banking, insurance, and securities, as well as the music industry. In 1919, veterans of the 105th Aero Squadron residing in the Nashville area organized an air element of the Tennessee National Guard (TNANG 1986). A local farm was converted to a 100 acre flying site known as Blackwood Field. The unit was designated the 136th Air Observation Squadron in 1921 and re-designated the 105th Observation Squadron in 1923 (118th Airlift Wing 2000).

In 1935, an airport site for Nashville was located on four farms along the Dixie Highway (now Murfreesboro Road) (MNAA 2000). The airport opened in 1937 as Berry Field Nashville (BNA) with a terminal building, two hangars, and a 4,000-foot concrete runway. In 1938, the 105th Observation Squadron moved to Berry Field and the Federal government added additional land to Berry Field for military operations. In 1940, the squadron was called to active duty, but was inactivated in 1942 and its personnel and aircraft absorbed into the 521st Bombardment Squadron (Heavy). The 105th Observation Squadron was re-designated the 105th Reconnaissance Squadron (Bombardment) in 1943 and became inactive in 1945. The following year, the squadron reorganized at Berry Field and was assigned to the 54th Fighter Wing, 14th Air Force (118th Airlift Wing 2000). The 105th Reconnaissance Squadron (B) was re designated the 105th Fighter Squadron and assigned to the 118th Fighter Group.

After World War II, the military returned a 1,500-acre airport to the City of Nashville (MNAA 2000). The 118th Composite Wing was constituted in 1950 and assigned to the 14th Air Force, Continental Air Command, with Wing Headquarters at Berry Field. The 118th Fighter Group was re-designated the 118th Composite Group and, along with the 105th Fighter Squadron, was absorbed by the 118th Composite Wing. In 1951, the 118th Composite Wing, 118th Composite Group, and 105th Fighter Squadron were re-designated the 118th Tactical Reconnaissance Wing, Group and Squadron respectively (118th Airlift Wing 2000). The 105th Tactical Reconnaissance Squadron was re-designated as the 105th Fighter Interceptor Squadron in 1951. In 1953, after assignment elsewhere, the 118th Tactical Reconnaissance Wing returned to Berry Field with the following assigned units: 118th Tactical Reconnaissance Group, 105th Tactical Reconnaissance Squadron, 155th Tactical Reconnaissance Squadron at Memphis, and the 154th Tactical Reconnaissance Squadron at Little Rock, Arkansas (118th Airlift Wing).

In 1965, the ANG Airlift Command Post was established at Berry Field to control more than 180 ANG aircraft nationwide. The 118th Air Transport Wing was re-designated the 118th Military Airlift Wing, Group and Squadron in 1966. The Wing became the 118th Tactical Airlift Wing in 1971 and was assigned to Tactical Air Command (TAC). In 1992, the 118th Tactical Airlift Wing became the 118th Airlift Wing (AW) and was later assigned to the 8th Air Force, Air Mobility Command (AMC) (118th Airlift Wing 2000). The mission of the 118 AW is to maintain combat readiness and mobility to deploy globally in the event of a state or national security action.

The airport was expanded in the late 1950s, and again in 1970. The Metropolitan Government of Nashville/Davidson County formed the MNAA. By 1977, the airport consisted of 3,300 acres with three runways. In 1985, an additional expansion was planned, and in 1987 the airport dedicated a new passenger terminal (MNAA 2000). Major construction began in 1988 on a new parallel runway east of Donelson Pike that connected to the existing runways by a taxiway bridge spanning Donelson Pike (MNAA 2000). The airport's name was changed to Nashville IAP in 1988.

3.8.2 Archaeological and Cultural Resources

Previous cultural resources surveys at Nashville IAP (outside the TNANG base) include: survey of a new terminal location (Autry 1980); survey of 800 acres east of Donelson Pike (DuVall 1986); and survey of 160 acres of proposed runway expansion at the northern end of Nashville IAP (Garrow & Associates 1992). The runway expansion survey identified three sites within the main airport (outside the TNANG base): one historic cemetery and two historic house foundation sites that were considered potentially eligible for the NRHP (Garrow & Associates 1992).

No significant archaeological, architectural, or traditional cultural resources have been identified within the TNANG base (TNANG 1995). TNANG undertakings are reviewed on a project-by-project basis by the Tennessee State Historical Commission. There are no tribal resources or Indian lands within the base (BIA 1998).

3.9 Socioeconomics

3.9.1 Population

According to Woods & Poole Economics data, the average annual growth rate (AAGR) for the Nashville MSA population has historically outpaced that for the State of Tennessee and the United States. This trend is anticipated to continue throughout the forecast period. Table 7 shows historic and projected populations and corresponding AAGRs for the Nashville MSA, the State of Tennessee, and the United States for years 2000 through 2010 (historic) and 2011 through 2031 (projected).

TABLE 6: Population Trend Comparison

Year	Nashville MSA (000)	AAGR	TN	AAGR	United States (000)	AAGR
2000	1,317.6	-	5,703	-	282,172	-
2005	1,450.5	1.9%	5,996	1.0%	295,753	0.9%
2010	1,613.3	2.1%	6,368	1.2%	310,009	0.9%
AAGR 2000-2010		**2.0%**		**1.1%**		**0.9%**
2011	1,644.2	1.9%	6,439	1.1%	313,010	1.0%
2016	1,801.4	2.2%	6,805	1.3%	328,488	1.2%
2021	1,961.3	1.7%	7,181	1.1%	344,480	1.0%
2026	2,122.9	1.6%	7,564	1.0%	360,765	0.9%
2031	2,284.8	1.5%	7.947	1.0%	377,087	0.9%
AAGR 2010-2031		**1.7%**		**1.1%**		**0.9%**

Note: AAGR - Average Annual Growth Rate. Source: Woods & Poole Economics.

3.9.2 Per Capita Income

The historic and projected per capita income for the Nashville MSA, the State of Tennessee, and the United States are shown in Table 8. The historic data show that the Nashville MSA was below the U.S. average, however was higher than the State of Tennessee. Although the historic data show that the Nashville MSA had a lower average annual growth rate over the past 10 years, the MSA is projected to grow commensurate to what is projected for the state and national levels.

TABLE 7: Per Capita Income Trend

Year	Nashville MSA ($)	AAGR	TN	AAGR	United States ($)	AAGR
2000	31,662	-	26,691	-	30,318	-
2005	36,052	2.6%	31,294	3.2%	35,424	3.2%
2010	37,954	1.0%	34,022	1.7%	39,063	2.0%
AARG						
2000 - 2010		**1.8%**		**2.5%**		**2.5%**
2011	39,478	4.0%	35,441	4.2%	40,668	4.1%
2016	49,163	5.3%	44,191	5.4%	50,520	5.3%
2021	62,181	4.8%	55,911	4.8%	63,695	4.7%
2026	79,749	5.1%	71,712	5.1%	81,455	5.0%
2031	102,982	5.2%	92,583	5.2%	104,910	5.2%
AARG						
2010 - 2031		**4.9%**		**4.9%**		**4.9%**

Note: AAGR - Average Annual Growth Rate, Source: 2012 Woods & Poole Economics.

3.9.3 Employment

As shown in Table 9, historic employment rates for the Nashville MSA have outpaced that of both the State of Tennessee and the United States. Additionally, projected employment rates for the Nashville MSA are anticipated to maintain higher than state and national levels.

TABLE 8: Employment Levels

Year	Nashville MSA (000)	Percent Employed	TN (000)	Percent Employed	United States (000)	Percent Employed
2000	913.0	69.3%	3,471	60.9%	165,371	58.6%
2005	977.9	67.4%	3,597	60.0%	172,551	58.3%
2010	986.0	61.1%	3,557	55.9%	174,063	56.1%
AARG						
2000 - 2010		**0.8%**		**0.2%**		**0.5%**
2011	1,015.1	61.7%	3,653	56.7%	178,646	57.1%
2016	1,095.7	60.8%	3,891	57.2%	189,138	57.6%
2021	1,182.8	60.3%	4,142	57.7%	200,138	58.1%
2026	1,276.9	60.2%	4,408	58.3%	211,663	58.7%
2031	1,378.7	60.3%	4,690	59.0%	223,728	59.3%
AARG						
2010 - 2031		**1.5%**		**1.3%**		**1.1%**

Note: AAGR - Average Annual Growth Rate, Source: 2012 Woods & Poole Economics.

3.10 Environmental Justice

Federal agency actions that could substantially affect human health or the environment must be evaluated to ensure that groups of people, including racial, ethnic or socioeconomic groups, should not bear a disproportionate share of the negative environmental impacts.

For purposes of this Environmental Assessment, the Region of Interest is considered to be Davidson County. Specific demographic and socioeconomic characteristics within Davidson County are compared with those within Tennessee. The following Table-9 presents that information.

TABLE 9: Demographics

Characteristic (2012)	Davidson County	Tennessee
Population	646,295	6,456,243
White alone	65.8%	79.3%
Black or African American alone	28.1%	17.0%
American Indian and Alaska Native alone	0.5%	0.4%
Asian alone	3.2%	1.6%

Characteristic (2012)	Davidson County	Tennessee
Native Hawaiian and Other Pacific Islander alone	0.1%	0.1%
Two or more races	2.2%	1.6%
Hispanic or Latino	9.9%	4.8%
White alone, not Hispanic or Latino	57.1%	75.1%
Median household income (2007-2011)	46,737	43,989
Persons below poverty level (2007-2011)	17.7%	16.9%

Source: US Census Bureau, Davidson County Quick Facts (2013)

3.11 Infrastructure

3.11.1 Transportation

Major surface transportation routes in the vicinity include Interstate-40 two miles to the north, Interstate-24 two miles to the south, US Route 41 (State Route 1) or Murfreesboro Road, and State Route 255 or Donelson Pike immediately south and east respectively of the subject project. (Please refer to Figure 3-4 for Transportation Routes).
Following in Table 10 the 2012 Annual Average Daily Traffic for the above-referenced routes in the vicinity of the subject project is presented.

TABLE 10: Berry Field Area Transportation Routes

Highway	Intersection	2012 Annual Daily Traffic Volume
I-40	SR-255	101,719
I-24	SR-255	165,632
US-41	SR-255	31,875
SR-255	US-41	29,055

Source: TN Department of Transportation, Long Range Planning Office, 2012 Annual Average Daily Traffic Report. (2013)

Air transportation services are available at the Nashville International Airport.

Rail transportation services are not available near the Project.

Waterways transportation services are not available near the Project.

3.11.2 Electrical System and Natural Gas

Electrical supply service for the Project is Nashville Electric Service (NES). NES owns and maintains transformers and the primary electrical distribution system on the property.

Natural gas supplier for the Project is Piedmont Gas.

3.11.3 Potable Water

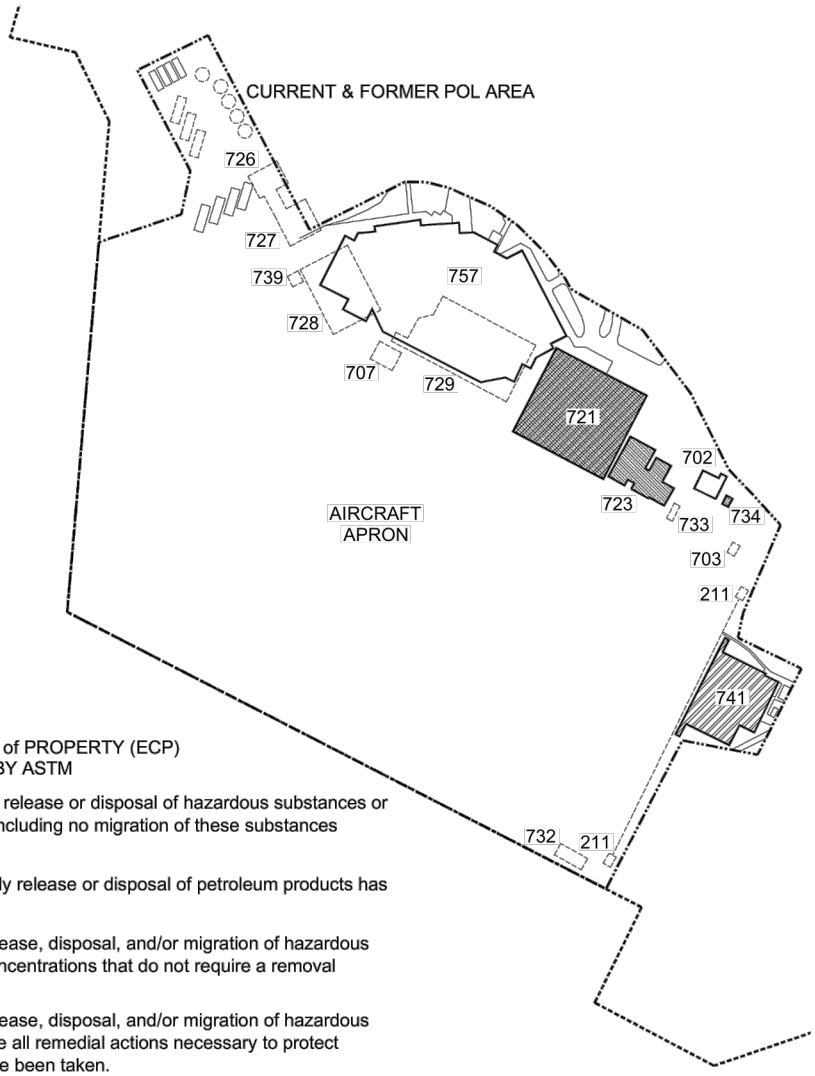
Water supply service for the Project is furnished by Metro Water Services.

3.11.4 Solid Waste

Solid waste collection and disposal services are available from Nashville Public Works or private contractors.

3.11.5 Sanitary Sewer

Sanitary sewer services are available from Metro Water Services.



ENVIRONMENTAL CONDITION of PROPERTY (ECP)
TYPES DEFINED BY ASTM

ECP Area Type 1. Areas where no release or disposal of hazardous substances or petroleum products has occurred (including no migration of these substances from adjacent areas).

ECP Area Type 2. Areas where only release or disposal of petroleum products has occurred.

ECP Area Type 3. Areas where release, disposal, and/or migration of hazardous substances has occurred, but at concentrations that do not require a removal or remedial action.

ECP Area Type 4. Areas where release, disposal, and/or migration of hazardous substances has occurred and where all remedial actions necessary to protect human health and environment have been taken.

ECP Area Type 5. Areas where release, disposal, and/or migration of hazardous substances has occurred and where removal and remedial actions are underway, but where all required remedial actions have not yet been taken.

ECP Area Type 6. Areas where release, disposal, and/or migration of hazardous substances has occurred, but where required actions have not yet been implemented.

ECP Area Type 7. Areas that have not yet been evaluated or that require additional evaluation.

ACMs in buildings 721 & 741

LBP in buildings 721, 723, & 734

The Whole Property is designated as a qualified parcel for RADON

LEGEND
- EXISTING BUILDING
- FORMER BUILDING
- FORMER TNANG 118TH AIRLIFT WING FACILITIES
- 118TH AIRLIFT WING BERRY FIELD

JOINT VENTURE PARTNERS

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Title :
Environmetntal Conditions - EBS Air National Guard Base/Berry Field Nashville, TN
Source : EBS Survey No. S00113660-13 (2013)

Scale: NTS

Project :
Re-alignment of Army Aviation Support Facilities at Air National Guard Base/Berry Field

Proj. # 20100247

Date: 08/15/13

Figure. No. 3-8

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3.12 Hazardous and Toxic Materials/Wastes

3.12.1 Hazardous Materials

During the EBS site visit, all aircraft operations had been concluded and most of the hazardous substances were turned-in or disposed of. A satellite storage area was observed in the work bay of Building 741, and four 20,000-gallon JP-8 ASTs were observed at the POL Storage Area. The only hazardous material currently stored on site is aviation fuel in the POL area. During the site visit, very little storage of hazardous substances was observed at the Property. Small quantities of janitorial cleaning supplies were observed, along with occasional caches of small quantities (<5 gallons) of materials awaiting turn-in. The four 20,000-gallon JP-8 storage tanks at the POL Storage Area may contain new product.

Historic waste storage areas identified at the Property include the former Building 733 (Hazard Storage Shed) and the satellite storage area within the Building 741 work bay. There were undoubtedly hazardous substance and hazardous waste storage areas associated with historic activities at the former Buildings 728 and 729, as well as at Building 723 before it was converted from being a maintenance facility.

3.12.2 Hazardous Wastes

The TNANG Base is presently registered as an RCRA SQG, with no notices of violation (NOVs). Prior to 2006, the facility was registered as an LQG. Written informal NOVs were issued for the facility in 2002 regarding pre-transport storage and records/reporting deficiencies. There are no records of any formal violations occurring at the facility. This site is not expected to pose a threat to human health or the environment at the Property.

3.12.3 Storage Tanks

Thirteen USTs at this location have been closed; and no open leaking UST (LUST) cases were identified at the site. There is no evidence that historic USTs at or near the Property present a threat to human health or the environment at the Property. U.S. Airways and the Federal Aviation Administration (FAA) are located about ¼ mile north of the Property at or near the airport terminal. Van Dusen Airport Services, Hertz Rent A Car, Budget Rent A Car, and National Car Rental System are located about ¼ mile northwest of the Property. The Harold W. Jordan Rehabilitation Center is located about ⅓ mile west of the Property. The Nashville, Tennessee Automated Flight Service Station Nashville International Airport (AFSS BNA) is located about ½ mile northwest of the Property. Historic and existing USTs located at these facilities are downhill and down-gradient from the Property and are therefore not expected to present a threat to human health or the environment.

The Tennessee Department of Safety is located about ¼ mile southeast and up-gradient/uphill from the Property. The Tennessee Department of Safety has one 10,000-gallon gasoline UST in use; the remaining five USTs have been closed. No open LUST cases were identified at this location. This site is not expected to present a threat to human health or the environment at the Property. Please refer to Appendix X for the Historic and Existing USTs Registered within 1 Mile of the Property, Former TNANG 118th Airlift Wing Facilities, Berry Field, Nashville, Tennessee data.

A visual inspection was undertaken to locate ASTs or USTs on the Property, including inspection for vent pipes, fill pipes, concrete pads, and UST access ways. Based upon visual inspection and a review of previous environmental records, no USTs were documented to exist on the Property. Four 20,000-gallon JP-8 ASTs were observed at the POL Storage Area during the site visit. The active (in-use) USTs situated on the Property are listed in Table 11.

TABLE 11: Active USTs, Former TNANG 118th Airlift Wing, Berry Field

Tank ID	Location	Installation Date	Use	Notes
TNANG Tank 11	Former Bldg. 728	1962	500-gallon waste oil (oil/water separator)	In use 1988
TNANG Tank 12	Former Bldg. 729	1965	500-gallon waste oil (oil/water separator)	In use 1988
TNANG Tank 13	Bldg. 734	1971	1000-gallon waste oil (oil/water separator)	In use 1988
TNANG Tank 17	Bldg. 741	1985	5,000-gallon waste oil tank (oil/water separator)	In use 1988

The only ASTs and USTs identified on land adjacent to the Property are those registered with the State of Tennessee at the remaining facilities at TNANG Berry Field north and west of the Property. With the exception of a 280-gallon UST with unknown contents, all of the USTs at Berry Field outside of the Property boundaries are either closed or are permanently out of use.

An AST military vehicle refueling station was observed in a parking area north of Building 757.

3.12.4 Environmental Restoration Program

There are no know Installation Restoration Program or hazardous waste sites on the property.

3.12.5 Asbestos-Containing Material

ACMs are commonly found in buildings constructed prior to the late 1970s. All of the structures at the Property except for Buildings 702 and 757 were constructed prior to the late 1970s, so asbestos surveys were conducted at the site in 1997 and 2003 (ANG, 1998 and 2004). Results of the asbestos surveys for existing buildings at the site are presented in Table 12.

TABLE 12: Asbestos Survey Results 1997 & 2003

Building Number	Media Sampled	Results
702	12 x 112 tan floor tile and mastic.	Negative
721	▪ 12 x 12 specked, black, tan, and white floor tiles and mastic. ▪ 12 x 12 white ceiling tile. ▪ Mudded thermal insulation on high temp heat supply fittings and on domestic water fittings. ▪ Thermal insulation on high temp supply lines and on domestic water lines. **(Pages missing from 2004 document).*	▪ Mudded thermal insulation on the high temp heat supply fittings and thermal insulation on the high temp heat supply lines in the mechanical room and throughout the building are considered ACM. ▪ Mudded thermal insulation on the domestic water fittings in Room 100 and throughout the building are considered ACM. ▪ Some of the ACM was found to have moderate damage and require immediate repair. Floor tiles, mastic, ceiling tile, and thermal insulation on domestic water lines was found to be non-ACM. **(Pages missing from 2004 document)*
723	▪ 9 x 9 black floor tile and mastic. **(Pages missing from 2004 document)*	Negative - Building determined to be ACM free.
734	No visible potential ACMs	Building determined to be ACM free.
741	▪ Thermal insulation on expansion tank. ▪ 12 x 12 light brown floor tile and mastic.	▪ The 12 x 12 light brown floor tile located in the janitor's closet was found to be non-ACM; however, the mastic was determined to be ACM. ▪ The material was found to be in good condition and no immediate action was required.

Hand-written notes made in the 1998 report along with real property records indicate that other buildings no longer present at the Property that were determined to contain ACMs were remediated for asbestos prior to demolition. Hand-written notes in the 2004 report indicate that ACMs were removed from most areas of Building 721 during 2008-2009 renovations, though the mudded thermal insulation on domestic water fittings are still ACM.

3.12.6 Lead-Based Paint

LBP is a recognized hazard in facilities constructed prior to 1978. Installation personnel indicated that buildings at the Property, all of which were constructed prior to 1978 except for Buildings 702 and 757,

are assumed to have LBP, but no records are available to document the locations of LBP in buildings on the Property.

3.13 Light Emissions and Visual Impacts

There are no special purpose laws or standards for light emission impacts and visual impacts. Because of the relatively low levels of light intensity compared to background levels associated with most air navigation facilities (NAVAIDs) and other airport development actions, light emissions impacts are unlikely to have an adverse impact on human activity or the use or characteristics of protected properties. Whenever the potential for an annoyance exists, such as site location of lights or light systems, pertinent characteristics of the particular system and its use, and measures to reduce any annoyance, such as shielding or angular adjustments information should be included in the appropriate environmental document.

Visual (i.e., aesthetic) impacts are inherently more difficult to define because of the subjectivity involved. Aesthetic impacts deal more broadly with the extent that the development contrasts with the existing environment and whether the jurisdictional agency considers this contrast objectionable. The visual sight of aircraft, aircraft contrails, or aircraft lights at night, particularly at a distance that is not normally intrusive, should not be assumed to constitute an adverse impact. The art and science of analyzing visual impacts is continuously improving.

None of the proposed Airport development items described in this document is expected to have significant light or visual related impacts.

For a summary of Environmental Conditions, as determined by the EBS (2013), please refer to Figure 3-11.

SECTION 4 ENVIRONMENTAL CONSEQUENCES

4.1 Land Use

4.1.1 Effects of the Proposed Action

The boundary of this project is within the confines of the existing Air National Guard Base, which subsequently is within the boundary of the Nashville International Airport. Land use and development on the NIA property is controlled by the MNAA. The ANG site has previously been designated for Military Use. Under the current MNAA Land Use Development Plan this site will continue, for the foreseeable future, to be designated for Military Use, and controlled by the Federal Government.

Land use off site is controlled by the Metro Planning Commission. Current land use within the one mile zone of influence is largely industrial/commercial and compatible with airport aeronautical use. The Commission is very sensitive to the impact of land development adjacent to the NIA. Therefore, it is envisioned that this prospective will be maintained for the foreseeable future and adjacent properties will continue to be zoned for industrial/commercial use.

Based upon the aforementioned circumstances this action will have no impact on land use.

4.1.2 Effects of the No Action Alternative

If the No Action Alternative was selected, the Tennessee Army National Guard would not move from the VTS-S and occupy facilities at the Nashville International Airport. This alternative would result in continued mission training requirement impacts due to facilities shortfalls. The current unit environmental footprint would remain at the VTS-S.

4.2 Air Quality

4.2.1 Effects of the Proposed Action

Air quality impacts were considered within short term and sustained perspectives. Short term impacts include temporary air emissions contributions from construction equipment, supplies and material. Sustained air emissions impacts occur from aviation assets, ground support equipment, motor vehicles and industrial operations.

Nashville and Davidson County are in attainment for current NAAQS pollutants. Therefore, requirements of the General Conformity Rule generally do not apply. However, emissions calculations have been included and compared to de minimis maintenance thresholds.

4.2.1.1 Construction Emissions

A significant amount of anticipated construction work associated with this action is interior building use conversion and rehabilitation of existing facilities. Projects would predominantly include work accomplished with small electrical power tools and hand tools. Mobile source emissions would present themselves from delivery trucks and construction contractor service trucks.

Exterior projects include installation of aircraft tie-downs anchors, building re-roofing activities and some minor building façade repair.

Air quality impacts from construction emissions would not be significant.

4.2.1.2 Operational Emissions

Sustained operational air emissions contributions include those from aircraft, helicopters, ground support equipment, motor vehicles including Privately Owned Vehicles and military assets, boilers, emergency generators and industrial processes.

TABLE 13: AIR EMISSIONS SOURCE INVENTORYFOR MILITARY AIRCRAFT

Aircraft	Local Operational Hours per Year	CO (Tons/Yr)	NOx (Tons/Yr)	SOx (Tons/Yr)	PM10 (Tons/Yr)
C-12	375.95	0.90	1.80	0.02	0.12
Lakota	1,157.05	0.94	2.31	0.32	0.03
Black Hawk	3,452.90	5.59	13.98	1.90	0.05
Total	4,985.90	7.43	18.10	2.24	0.20
De Minimis Rates		100	100	100	100

Additionally, limited VOC emissions will be presented from operation of the above ground fuel storage tanks. Permit coverage should continue under the NIA air pollution permit. Fuel throughputs will be supplied to the NIA for reporting under their permit.

4.2.2 Effects of the No Action Alternative

If the No Action Alternative was selected, the Tennessee Army National Guard would not move from the VTS-S and occupy facilities at the Nashville International Airport. This alternative would result in continued mission training requirement impacts due to facilities shortfalls. The current unit environmental footprint would remain at the VTS-S.

4.3 Noise

4.3.1 Effects of the Proposed Action

4.3.1.1 Facility Noise

Facility noise may arise from the operation of heating, ventilating and air conditioning mechanical units and emergency generators. Given the current background environment of a commercial and general aviation airport facility, and two major adjacent highways, noise generated by facilities would be insignificant.

4.3.1.2 Aircraft Noise

In 2012 the MNAA completed its Noise Exposure Map Update required by the FAA in 14 CFR 150. Exposure map contours were developed based upon a 2012 Military Aircraft fleet mix that included the C-12 Beechcraft Huron, C-130 Lockheed Hercules, and the S70 Sikorsky Black Hawk helicopter.

The aircraft fleet mix was modified for projected aircraft operations in 2017 and included Army Aviation assets associated with a move from VTS-S to NIA. Noise modeling was accomplished for a Military aircraft fleet mix that included the C-12 Beechcraft Huron, the SA365N Eurocopter Dauphin helicopter and the S70 Sikorsky Black Hawk helicopter. This information was presented as a 2017 Forecast Condition Noise Exposure Map. Military flight operations projections of TNARNG and other service aircraft used in the noise analysis for 2009, 2011 and 2016 are summarized in Tables included in Appendix D.

Military aircraft noise emissions fit within the NIA noise exposure maps accepted by the FAA. Approach and departure aircraft will follow flight procedures stipulated by FAA Air Traffic Control functions to operate within NIA noise mitigation parameters.

Based upon the aforementioned circumstances this action will have no significant impact on noise emissions.

4.3.2 Effects of the No Action Alternative

If the No Action Alternative was selected, the Tennessee Army National Guard would not move from the VTS-S and occupy facilities at the Nashville International Airport. This alternative would result in continued mission training requirement impacts due to facilities shortfalls. The current unit environmental footprint would remain at the VTS-S and military flight operations would continue at Nashville International Airport (at a lessor rate than planned by MNAA).

4.4 Geology, Topography, and Soils

4.4.1 Effects of the Proposed Action

Currently, very limited construction activities associated with the proposed action will affect vicinity geology, topography and soils.

These activities will have no significant impact.

4.4.2 Effects of the No Action Alternative

If the No Action Alternative was selected, the Tennessee Army National Guard would not move from the VTS-S and occupy facilities at the Nashville International Airport. This alternative would result in continued mission training requirement impacts due to facilities shortfalls. The current unit environmental footprint would remain at the VTS-S.

4.5 Water Resources

4.5.1 Effects of the Proposed Action

No activities are anticipated that will affect groundwater.

The proposed project site is not located in a floodplain.
There are no identified wetlands located on the proposed project site.

Stormwater generated on site will be regulated through a Tennessee General NPDES Industrial Multi Sector Permit. Best Management Practices will be employed to reduce risk of pollutants entering the storm water collection system. These practices include secondary containment for aircraft refueling vehicles, above-ground storage tanks, hazardous materials storage areas and hazardous waste accumulation points. Industrial storm water will be regulated through a Storm water Pollution Prevention Plan, hazardous waste through a Hazardous Waste Management Plan and oil pollution through a Spill Prevention Control and Countermeasures Plan.

Additionally, contingency cleanup materials and collection containers will be available on site for control of small spills. The Metro Nashville Fire Department offers quick response hazmat management teams for controlling larger uncontrolled releases.

There will be no significant impact on storm water.

4.5.2 Effects of the No Action Alternative

If the No Action Alternative was selected, the Tennessee Army National Guard would not move from the VTS-S and occupy facilities at the Nashville International Airport. This alternative would result in continued mission training requirement impacts due to facilities shortfalls. The current unit environmental footprint would remain at the VTS-S.

4.6 Biological Resources

4.6.1 Effects of the Proposed Action

Given the highly developed nature of the existing facilities, facility grounds cover (aircraft parking ramp, vehicle parking lots and buildings) and human activity, risk of adversely affecting biological resources is substantially reduced. Additionally, limited exterior construction work will be undertaken reducing exposure risk.

There will be no significant impact on biological resources.

4.6.2 Effects of the No Action Alternative

If the No Action Alternative was selected, the Tennessee Army National Guard would not move from the VTS-S and occupy facilities at the Nashville International Airport. This alternative would result in continued mission training requirement impacts due to facilities shortfalls. The current unit environmental footprint would remain at the VTS-S.

4.7 Cultural Resources

4.7.1 Effects of the Proposed Action

There have been no historic structures, archaeological resources, or traditional cultural properties located within the project boundary.

There will be no impact on cultural resources.

4.7.2 Effects of the No Action Alternative

If the No Action Alternative was selected, the Tennessee Army National Guard would not move from the VTS-S and occupy facilities at the Nashville International Airport. This alternative would result in continued mission training requirement impacts due to facilities shortfalls. The current unit environmental footprint would remain at the VTS-S.

4.8 Socioeconomics

4.8.1 Effects of the Proposed Action

Given the limited number of technician employees and infrequent traditional guardspersons, this action will have an insignificant impact on the community socioeconomic structure.

4.8.2 Effects of the No Action Alternative

If the No Action Alternative was selected, the Tennessee Army National Guard would not move from the VTS-S and occupy facilities at the Nashville International Airport. This alternative would result in continued mission training requirement impacts due to facilities shortfalls. The current unit environmental footprint would remain at the VTS-S.

4.9 Environmental Justice

4.9.1 Effects of the Proposed Action

No projects are anticipated off-installation and flight operations will conform to FAA Air Traffic Control procedures substantially reducing impact on socio-economically disadvantaged groups.

This action will have an insignificant impact on sensitive groups.

4.9.2 Effects of the No Action Alternative

If the No Action Alternative was selected, the Tennessee Army National Guard would not move from the VTS-S and occupy facilities at the Nashville International Airport. This alternative would result in continued mission training requirement impacts due to facilities shortfalls. The current unit environmental footprint would remain at the VTS-S

4.10 Infrastructure

4.10.1 Effects of the Proposed Action

Given the limited number of personnel traveling to and from the proposed site as compared to average number of vehicles traveling adjacent highway this action will have no significant impact.

4.10.2 Effects of the No Action Alternative

If the No Action Alternative was selected, the Tennessee Army National Guard would not move from the VTS-S and occupy facilities at the Nashville International Airport. This alternative would result in continued mission training requirement impacts due to facilities shortfalls. The current unit environmental footprint would remain at the VTS-S.

4.11 Hazardous and Toxic Materials/Wastes

4.11.1 Effects of the Proposed Action

Some hazardous materials will be utilized on site. These materials will be transported and stored in accordance with best management practices, Storm water Pollution Prevention Plan and Spill Prevention Control and Countermeasures Plan.

Some small quantities of hazardous waste will be generated but will be managed in accordance with TDEC rules and locally adopted Hazardous Waste Management Plan.

No underground storage tanks will be utilized on base.

4.11.2 Effects of the No Action Alternative

If the No Action Alternative was selected, the Tennessee Army National Guard would not move from the VTS-S and occupy facilities at the Nashville International Airport. This alternative would result in continued mission training requirement impacts due to facilities shortfalls. The current unit environmental footprint would remain at the VTS-S.

4.12 Lighting and Visual Effects

4.12.1 Effects of the Proposed Action

Some facility exterior lighting will be required for installation security. Motorized vehicles and aviation assets provide some illumination and identification lighting. Given the current backdrop of an operational commercial airport with navigational lighting these light sources will have no significant impact.

Architectural and visual presentation of facilities is closely aligned with commercial aviation and industrial facilities in the area.

4.12.2 Effects of the No Action Alternative

If the No Action Alternative was selected, the Tennessee Army National Guard would not move from the VTS-S and occupy facilities at the Nashville International Airport. This alternative would result in continued mission training requirement impacts due to facilities shortfalls. The current unit environmental footprint would remain at the VTS-S.

4.13 Cumulative Effects

Conditions at the site discussed in the Environmental Baseline Survey indicate the presence of remaining asbestos containing materials and lead based paint. Proposed construction activities will include mitigation of these hazards. New construction will not utilize these building materials.

Potential Federal actions are likely to be undertaken by the U.S. Army Corps of Engineers and Tennessee Valley Authority. A significant amount of FAA Airport Improvement Program funding is supplied to the Nashville International Airport. The scope of this project is not significant compared to other projects.

No cumulative environmental impacts are anticipated.

SECTION 5 COMPARISON OF ALTERNATIVES AND CONCLUSIONS

5.1 Comparison of the Environmental Consequences of the Alternatives

Environmental impacts of the proposed project and No Action alternative were examined in light of the current environment, statutory and regulatory requirements. Giving due consideration to each of the specified resources areas, we find that there are not significant environmental impacts. The proposed action would potentially result in short-term insignificant environmental impacts that would be further reduced by adherence to environmental compliance requirements. The following table addresses the anticipated impacts within resource areas.

TABLE 14: Summary of Environmental Impacts

Resource	Proposed Action	No Action Alternative
Land Use	No impacts to existing land use would occur.	No impact attributable to TNARNG Action.
Air Quality	Insignificant emissions from equipment during construction. Long-term, less than significant adverse impacts from equipment emissions during operations. Long-term impacts would be reduced through implementation of BMPs, effective hazardous materials management and air pollution permit compliance.	No impact attributable to TNARNG Action.
Noise	Insignificant impacts due to noise generation during construction. Potential impacts would be reduced through implementation of BMPs. Long term impacts from operational equipment would be minimized by adhering to approved flight procedures.	No impact attributable to TNARNG Action.
Geology and Soils	Insignificant adverse impact to soils during construction due to extremely limited exposure.	No impact attributable to TNARNG Action.
Water Resources	Impacts would be minimized by adherence to NPDES Industrial Stormwater Permit, Stormwater Pollution Plan and Spill Prevention Control and Countermeasures Plan, and stormwater BMP's.	No impact attributable to TNARNG Action.

Resource	Proposed Action	No Action Alternative
Biological Resources	No suitable habitat for special status species exists.	No impact attributable to TNARNG Action.
Cultural Resources	No historic properties have been identified; therefore, construction and operation activities would have no impact on potentially eligible cultural resources.	No impact attributable to TNARNG Action.
Socioeconomics	Short-term beneficial impacts due to temporary employment and secondary spending in the region during construction.	No impact attributable to TNARNG Action.
Environmental Justice	No impacts to minority populations, low-income populations, or children would occur.	No impact attributable to TNARNG Action.
Infrastructure	Long-term less than significant adverse impacts due to additional traffic.	No impact attributable to TNARNG Action.
Hazardous and Toxic Materials and Wastes	Short- and long-term less than significant adverse impacts due to generation of hazardous wastes during construction and operation. Any potential hazardous substances (Lead Based Paint and ACM) would be avoided or remediated prior to construction.	No impact attributable to TNARNG Action.
Lighting and Visual Effects	No significant environmental and aesthetic impact from existing building architecture and lighting systems.	No impact attributable to TNARNG Action.

5.2 Conclusions

Based upon the results of the analysis conducted for this Environmental Assessment, we have determined that implementation of the Proposed Action would result in no significant impacts on the natural or human environment. No mitigation measures will be necessary to reduce any adverse impacts to below significant levels. Implementation of the Proposed Action is in conformity with NEPA requirements and applicable Federal, State and local environmental regulatory requirements. Therefore, no additional analyses or further NEPA documentation are required.

SECTION 6 REFERENCES

Federal Statutes, Regulations, Executive Orders, and Memoranda

Advisory Council on Historic Preservation. Protection of Historic and Cultural Properties (36 CFR 800).

American Indian Religious Freedom Act of 1978 (Public Law 95-341; 42 USC 1996).

Antiquities Act of 1906 (Public Law 59-209; 16 USC 431-433).

Archeological and Historic Data Preservation Act of 1974 (Public Law 93-291; 16 USC 469 469c).

Archeological Resources Protection Act of 1979 (Public Law 96-95; 16 USC 470aa-470ll).

Clean Air Act Amendments of 1990.

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EO 12856. Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements. 3 August 1993.

EO 12898. Federal Actions to Address Environmental Justice in Minority and Low-Income Populations. 11 February 1994.

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EO 13148. Greening the Government Through Leadership in Environmental Management. 22 April 2000.

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EO 13186. Responsibilities of Federal Agencies to Protect Migratory Birds. 10 January 2001.

EO 13287. Preserve America. 3 March 2003.

EO 13423. Strengthening Federal Environmental, Energy, and Transportation Management.

January 2007.

EO 13514. Federal Leadership in Environmental, Energy, and Economic Performance. 5 October 2009.

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National Historic Preservation Act of 1966 (Public Law 95-515; Public Law 102-575; 16 USC 470).

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Pollution Prevention Act of 1990 (42 USC 13101-13109).

President. 1994. Memorandum for Heads of Executive Departments and Agencies on

Government-to-Government Relations with Native American Tribal Governments. 29 April.

Resource Conservation and Recovery Act of 1976 (42 USC 6901, et seq.).

Superfund Amendments and Reauthorization Act of 1986 (40 CFR 300).

U.S. Environmental Protection Agency. General Conformity Rule (40 CFR 51, Subpart W).

Department of Defense and Army References

Army Regulation (AR) 5-10, Stationing

AR 5-18, Army Stationing and Installation Plan

AR 70-1, Army Acquisition Policy

AR 95-2, Air Traffic Control, Airspace, Airfields, Flight Activities, and Navigational Aids

AR 200-1, Environmental Protection and Enhancement

AR 210-20, Real Property Master Planning for Army Installations

AR 350-19, The Army Sustainable Range Program [ITAM]

AR 380-5, Department of the Army Information Security Program

AR 405-10, Acquisition of Real Property and Interests Therein

Department of the Army Pamphlet 70-3, Army Acquisition Procedures

Department of the Army Pamphlet 200-4, Cultural Resources Management

Department of Defense (DoD). 1995. Department of Defense Strategy on Environmental Justice. March.

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DoD Directive 5000.1, The Defense Acquisition System (May 12, 2003)

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DoD Directive 5105.77, National Guard Bureau (NGB), (May 21, 2008)

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SECTION 7 LIST OF PREPARERS

Tennessee Army National Guard	
Name	**Title**
COL James B. Bishop	Construction Facility Management Officer
COL Stephen London	Deputy Construction Facility Management Officer
Greg Turner	Environmental Program Manager

EDGE Group/LEA		
Name	**Title**	**Experience**
Charles S. Higgins, Jr. P.E	Project Principal-In-Charge	B.S. Civil Engineering, M.S. Environmental and Water Resources Engineering. 40 years of professional experience
James G. Currey III, P.E., BCEE	Senior Project Manager	B.S. Civil Engineering, 40 years of professional experience.
Kent B. Evetts, P.G.	Senior Project Manager	B.S. Geology, 31 years of professional experience

SECTION 8 AGENCIES AND INDIVIDUALS CONSULTED

Letters requesting comment have been submitted to the agencies listed below. A copy of the agency correspondence letter is included in Appendix B.

Henryetta Ellis
Absentee Shawnee Tribe of Oklahoma
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Seminole Tribe of Florida
Tribal Historic Preservation Office
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Thlopthlocco Tribal Town
THPO
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Tunica-Biloxi Tribal Historic Preservation Officer
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Lisa C. Baker, Acting THPO
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TDEC

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Tennessee Wildlife Resources Agency
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Chief Jim Henson
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Nashville, Tennessee 37202

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APPENDIX A

Environmental Laws Relevant to Proposed Action

Law	Agencies	Responsible Function
National Environmental Policy Act (NEPA)	All Federal Agencies	Requires disclosure and consideration of environmental impacts of federally funded and/or proposed actions.
Clean Water Act (CWA)	EPA, USACE, CDPHE	Regulates water quality by establishing standards and facilitating permit programs.
Clean Air Act (CAA)	EPA, CDPHE	Regulates air quality by establishing standards and permit programs, and by providing framework for enforcement actions.
Resource Conservation and Recovery Act (RCRA)	EPA, CDPHE	Regulates storage, handling, and generation of hazardous and nonhazardous solid waste.
Endangered Species Act (ESA)	USFWS	Established mechanism for listing threatened and endangered species as well as establishing species recovery programs.
National Historic Preservation Act (NHPA)	All Federal Agencies	Involves any activities affecting historic properties on Federal land or through a federally proposed action.
Army Regulation (AR) 200-1 Environmental Analysis of Army Actions	DoD	Provides guidance for the Army National Guard based on CEQ regulations.
Executive Order 11988 Floodplain Management	All Federal Agencies	Relevant to any activities involving floodplains on Federal land or where floodplains could affect or be affected by a federally proposed action.
Executive Order 11990 Protection of Wetlands	All Federal Agencies	Relevant to any activities involving wetlands on Federal land or where wetlands could be affected by implementation of a federally proposed action.
Executive Order 12898 Federal Actions to Address Environmental Justice in Minority and Low-Income Populations	All Federal Agencies	Focuses the attention of Federal agencies on human health and environmental conditions in minority and low-income communities.

Law	Agencies	Responsible Function
Executive Order 13007 Indian Sacred Sites	All Federal Agencies	Directs executive departments and agencies to accommodate access to and ceremonial use of sacred sites by religious practitioners and avoid adversely affecting the physical integrity of such sacred sites.
Executive Order 13045 Protection of Children From Environmental Health and Safety Risks	All Federal Agencies	Prioritizes the identification and assessment of environmental health and safety risks that may affect children.
Executive Order 13423 Strengthening Federal Environmental, Energy, and Transportation Management	All Federal Agencies	Directs Federal agencies to conduct their environmental, transportation, and energy-related activities in a sustainable manner. Sets goals for energy efficiency, acquisition, renewable energy, toxic chemical reduction, recycling, sustainable buildings, electronics stewardship, fleets, and water conservation.
Executive Order 13514 Leadership in Environmental, Energy, and Economic Performance	All Federal Agencies	Establishes an integrated strategy towards sustainability in the Federal Government and to make reduction of greenhouse gas emissions a priority of Federal agencies.
Executive Order 13186 Responsibilities of Federal Agencies to Protect Migratory Birds	All Federal Agencies	Directs executive departments and agencies to take certain actions to further implement the Migratory Bird Act.
Safe Drinking Water Act (SDWA)	EPA, CDPHE	Involves facilities where drinking water is supplied to the public or that use non-stormwater dry wells for disposal. Also involves any projects that would potentially affect a sole-source aquifer.
Migratory Bird Treaty Act (MBTA)	USFWS	Protects migratory neotropical birds.
Federal Insecticide, Fungicide and Rodenticide Act (FIFRA)	EPA	Provides the basis for regulation, sale, distribution and use of pesticides in the US.

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APPENDIX B

AGENCY CORRESPONDENCE

Addressee:

Attn:

RE: Draft Environmental Assessment:
Air National Guard Base (Berry Field), Nashville International Airport;
Nashville, Davidson County, Tennessee

We request a consideration of the subject Environmental Assessment and a written evaluation of any potential issues of concern to your organization based on that evaluation.

Project Name: Re-Alignment of Army Aviation Support Facilities at Air National Guard Base/Berry Field; Environmental Assessment (EA)

Project Type: The EA evaluates individual and cumulative impacts associated with the relocation of 10 Army National Guard units including 19 helicopters and 1 fixed-wing aircraft from Smyrna, Tennessee to Berry Field and conversion/reuse of underutilized facilities there to support the units and equipment.

Project Location: 36^{o} 06' 35" N - 86^{o} 40' 33" W
Nashville, Davidson County, Tennessee

Parcel Size: 34 acres

USGS Quad: Antioch ($7\ ^{1}/_{2}$ minute topographic map)

This request is for a National Environmental Policy Act (NEPA) consideration of the EA provided as a .PDF file on the enclosed CD. If you wish to receive a paper copy of the EA, please contact me. Thank you for your consideration and assistance.

Respectfully,

APPENDIX C

PUBLIC COMMENTS

APPENDIX D

APPLICABLE REFERENCE INFORMATION

Vehicle List Moving from Smyrna to Berry Field

1-230th ACS

UIC	NSN	Nomen	O/H	Column1	Column2
WV7PD0	2320013719577	TRK UTIL M998A1	2	50	100
WV7PD0	2320015402017	TR UT EX CAP: M1165A1	1	50	50
WV7PD0	2330013875443	TLR CGO HI MOB 3/4T	3	50	150
WV7PE0	2320014476343	TRK CGO M1078A1 LMTV	3	50	150
WV7PE0	2330013875443	TLR CGO HI MOB 3/4T	3	50	150
WV7PE0	2330001418050	TLR CGO M105A2	3	50	150
WV7PE0	2330014491775	TRLER FLAT BED M1082	1	75	75
WV7PE0	1730010861653	TRAILER ACFT MAINT	1	50	50
WV7PE0	2330011087367	TRAILER WTR M149A2	1	50	50
WV7PF0	2320012064077	TRK TRAC M931A1	5	50	250
WV7PF0	2320012300302	TRK TRAC M931A2	1	50	50
WV7PF0	2320013469317	TRK UTIL 10000 M1097	1	50	50
WV7PF0	2320013719577	TRK UTIL M998A1	3	50	150
WV7PG0	2320013601895	TRK CGO MTV W/W M1083	1	75	75
WV7PF0	2320014473890	TRK CGO W/E M1083A1	2	75	150
WV7PF0	2330012073533	TLR FB 5 TON M1061A1	1	50	50
WV7PF0	2330013875443	TLR CGO HI MOB 3/4T	5	50	250
WV7PF0	2330011087367	TRAILER WTR M149A2	1	50	50
WV7PG0	2320011007673	TRK CGO TACT	1	75	75
WV7PG0	2320014933789	TRK CGO M985A2R1	3	75	225
WV7PG0	2320013042277	TRK CGO PLS M1074	1	75	75
WV7PG0	2320013042277	TRK CGO PLS M1074	1	75	75
WV7PG0	2320015527781	TRK EXP VAN WO/WINCH	1	50	50
WV7PG0	2330012757474	TRAILER AMMO HVY EXP	11	50	550
WV7PG0	2320015341117	TRK TANK W/O WINCH	1	50	50
WV7PG0	2320014928215	TRK TANK M978A2	1	50	50
WV7PG0	2320014933785	TRUCK CGO M977A2R1	3	75	225
WV7PG0	2320015341091	TRK CARG W/O W M977A4	1	50	50
WV7PG0	2320015341091	TRK CARG W/O W M977A4	1	50	50
WV7PG0	2320012064077	TRK TRAC M931A1	1	50	50
WV7PG0	2320012300302	TRK TRAC M931A2	1	50	50
WV7PG0	2320010478753	TRK TRAC M931	1	50	50
WV7PG0	2320011077155	TRK UTIL 1-1/4T M998	3	50	150
WV7PG0	2320013469317	TRK UTIL 10000 M1097	1	50	50
WV7PG0	2320013719577	TRK UTIL M998A1	3	50	150
WV7PG0	2320015402017	TR UT EX CAP: M1165A1	2	50	100
WV7PG0	2320015527773	TRK CGO LWB WO/WINCH	2	75	150
WV7PG0	2320013601895	TRK CGO MTV W/W M1083	7	75	525
WV7PG0	2320014473890	TRK CGO W/E M1083A1	2	75	150
WV7PG0	2320014928233	TRK WRECKER M984A2R1	1	50	50
WV7PG0	3930014172886	TRK LFT FK VAR RCH RT	1	50	50
WV7PG0	2320014928225	TRK TANK M978A2R1	6	50	300
WV7PG0	2320012300304	TRK WKR M936A2 W/WN	1	50	50
WV7PG0	2330014491770	TRLER FLAT BED M1095	4	50	200
WV7PG0	2330013875443	TLR CGO HI MOB 3/4T	4	50	200
WV7PG0	2320014928221	TRK PAL LO M1120A2	6	50	300
WV7PG0	2330012073533	TLR FB 5 TON M1061A1	1	50	50
WV7PG0	2330014491776	TRLER FLAT BED M1082	1	50	50
WV7PG0	2330011087367	TRAILER WTR M149A2	3	50	150
WV7PG0	3930011580849	TRK LF 6000LB RT	1	50	50
WV7PG0	233001C144405	TRAILER UTILITY: PN 24433 SILVER EAGLE	1	50	50
WV7PG0	234001C075582	VEHICLE ALL TERRAIN: GATOR TH DIESEL 6 X	1	50	50
WV7PT0	2320014476343	TRK CGO M1078A1 LMTV	3	50	150
WV7PT0	2320013469317	TRK UTIL 10000 M1097	3	50	150
WV7PT0	2320013719577	TRK UTIL M998A1	8	50	400
WV7PT0	2320015402017	TR UT EX CAP: M1165A1	3	50	150
WV7PT0	2320015402017	TR UT EX CAP: M1165A1	3	50	150
WV7PT0	2330013875426	TLR CGO HI MOB 11/4T	3	50	150
WV7PT0	2330013875443	TLR CGO HI MOB 3/4T	8	50	400
WV7PT0	2330014491775	TRLER FLAT BED M1082	1	50	50
WV7PT0	3930011463990	TRK LF FG30N7(T)	1	50	50
WP7SC0	2320013469317	TRK UTIL 10000 M1097	1	50	50
WP7SC0	2320013601895	TRK CGO MTV W/W M1083	1	75	75
WP7SC0	2320014473890	TRK CGO W/E M1083A1	1	75	75
WP7SC0	2320014950110	TRUCK CARGO M1084A1	1	50	50
WP7SC0	2320014928225	TRK TANK M978A2R1	1	50	50
WP7SC0	2320015498611	TRK CGO M1078A1P2 W/W	1	50	50
WP7SC0	2320014476343	TRK CGO M1078A1 LMTV	5	50	250
WP7SC0	2320015402017	TR UT EX CAP: M1165A1	6	50	300
WP7SC0	2320014473890	TRK CGO W/E M1083A1	1	75	75
WP7SC0	3930013016250	TRUCK,LIFT,FORK	1	50	50
WP7SC0	3930010543833	TRK LF DD IHC M-10A	1	50	50
WP7SC0	2320015527745	TR VAN M1079A1P2 WO/W	1	50	50
WP7SC0	2330014491776	TRLER FLAT BED M1095	2	50	100
WP7SC0	2330013875443	TLR CGO HI MOB 3/4T	6	50	300
WP7SC0	2330001418050	TLR CGO M105A2	2	50	100
WP7SC0	2330014491775	TRLER FLAT BED M1082	1	50	50
WP7SC0	1730010861653	TRAILER ACFT MAINT	1	50	50
WP7SC0		TRAILER TANK: WATER 400 GALLON 1-1/2 TON 2 WHEEL W/E	0	50	0
WNG7GDWNG7GGWNG7GP	2320011077155	TRK UTIL 1-1/4T M998	2	50	100
WNG7GDWNG7GGWNG7GP	2330013875443	TLR CGO HI MOB 3/4T	2	50	100
WNG7GDWNG7GGWNG7GP	2320011077155	TRK UTIL 1-1/4T M998	1	50	50
WNG7GDWNG7GGWNG7GP	1730004357818	TRAIL ACFT MAIN ARMBL	1	50	50
WNG7GDWNG7GGWNG7GP	2320014928225	TRK TANK M978A2R1	2	50	100
WNG7GDWNG7GGWNG7GP	2330013035197	TLR PLS 8X20 M1076	1	50	50
Total			192		10275

RECORD OF NON-APPLICABILITY (RONA) FOR GENERAL CONFORMITY

NAME OF PROJECT: Berry Field Realignment

PROJECT ID NUMBER:

POINT OF CONTACT: COL Stephen B. London

PHONE/EMAIL:

START DATE:

General Conformity under the Clean Air Act, Section1.76 has been evaluated for the project described above according to the requirements of 40 CFR 93, Subpart B. The requirements of this rule are not applicable to this project because:

The project qualifies as an exempt action. The applicable exemption citation is 40 CFR 93.153(c)(1), Actions where the total of direct and indirect emissions are below the emissions levels specified in paragraph (b) of this section.

_____ _____

COL Stephen B. London
Chief, Environmental Branch
Tennessee Army National Guard

Date

TNARNG NIA AIR EMISSIONS INVENTORY

Aircraft	Avg Daily Flight Operations	LTO Time (Hours)	Total Time per Year (Hours)
C-12	2.06	0.5	375.95
Lakota	6.34	0.5	1157.05
Black Hawk	18.92	0.5	3452.9
	27.32		4985.9

Aircraft	Emisions Rates Pounds per Hour of Operation			
	CO	NOx	Sox	PM10
C-12	4.78	9.60	0.12	0.62
Lakota	1.62	4.00	0.55	0.06
Black Hawk	3.24	8.10	1.10	0.03

Aircraft	Total Emissions Pounds per Year			
	CO	NOx	Sox	PM10
C-12	1,797.04	3,609.12	45.11	233.09
Lakota	1,874.42	4,628.20	636.38	69.42
Black Hawk	11,187.40	27,968.49	3,798.19	103.59
Lb/Year	14,858.86	36,205.81	4,479.68	406.10
C-12	0.90	1.80	0.02	0.12
Lakota	0.94	2.31	0.32	0.03
Black Hawk	5.59	13.98	1.90	0.05
Tons/Year	7.43	18.10	2.24	0.20
De Minimis	100	100	100	100

Table 7-1 - Endangered, Threatened, and Species of Special Concern in Davidson County TN

Common Name	Scientific Name	State Status	Federal Status
Invertebrate Animals:			
Baker Station Cave Beetle	Pseudanophthalmus insularis	Rare, Not State Listed	Candidate species
Orangefoot Pimpleback	Plethobasus cooperianus	Endangered	Endangered
Pink Mucket	Lampsilis abrupt	Endangered	Endangered
Salamander Mussel	Simpsonaias ambigua	Endangered	No Status
A Cave Obligate Planarian	Sphalloplana buchanani	Rare, Not State Listed	No Status
Cumberlandian Combshell	Epioblasma brevidens	Endangered	Endangered
Tan Riffleshell	Epioblasma florentina walker	Endangered	Endangered
Helmet Rocksnail	Lithasia duttoniana	Rare, Not State Listed	No Status
Nashville Crayfish	Orconectes shoupi	Endangered	Endangered
Vascular Plants:			
Pope's Sand-parsley	Ammoselinum popei	Threatened	No Status
Leafy Prairie-clover	Dalea foliosa	Endangered	Endangered
White Water-buttercup	Ranunculus aquatilis var. diffuses	Endangered	No Status
Thicket Parsley	Perideridia Americana	Endangered	No Status
Tennessee Milk-vetch	Astragalus tennesseensis	Special Concern	No Status
Willow Aster	Symphyotrichum praealtum	Endangered	No Status
Eggert's Sunflower	Helianthus eggertii	Special Concern	Deemed in Need of Management
Price's Potato-bean	Apios priceana	Endangered	Threatened
Western Wallflower	Erysimum capitatum	Endangered	No Status
Sand Grape	Vitis rupestris	Endangered	No Status
Limestone Fame-flower	Phemeranthus clacaricus	Special Concern	No Status
Tennessee Coneflower	Echinacea tennesseensis	Endangered	Endangered
Glade Cleft Phlox	Phlox bifida ssp. stellaria	Threatened	No Status
Water Stitchwort	Stellaria fontinalis	Special Concern	No Status
Yellow Sunnybell	Schoenolirion croceum	Threatened	No Status
White Prairie-clover	Dalea candida	Special Concern	No Status
Braun's Rockcress	Boechera perstellata	Endangered	Endangered

Common Name	Scientific Name	State Status	Federal Status
Duck River Bladderpod	Paysonia densipila	Threatened	No Status
Glade Onion	Allium stellatum	Endangered	No Status
Svenson's Wild-rye	Elymus svensonii	Endangered	No Status
Davis' Sedge	Carex davisii	Special Concern	No Status
Butternut	Juglans cinerea	Threatened	No Status
Goldenseal	Hydrastis Canadensis	Special Concern	No Status
Limestone Blue Star	Amsonia tabernaemontana var. gattingeri	Special Concern	No Status
Glade-cress	Leavenworthia exigua var. exigua	Special Concern	No Status
Pale Umbrella-wort	Mirabilis albida	Threatened	No Status
American Ginseng	Panax quinquefolius	Special Concern	No Status
Prairie Parsley	Polytaenia nuttallii	Threatened	No Status
Evolvulus	Evolvulus nuttallianus	Special Concern	No Status
Carolina Anemone	Anemone caroliniana	Endangered	No Status
Short's Bladderpod	Physaria globosa	Endangered	Candidate species
Appalachian Bugbane	Cimicifuga rubifolia	Threatened	No Status
Short's Rock-cress	Boechera shortii	Special Concern	No Status
Pyne's Ground-plum	Astragalus bibullatus	Endangered	Endangered
Canada Lily	Lilium canadesnse	Threatened	No Status
Harbison's Hawthorn	Crataegus harbinsonii	Endangered	No Status
Pubescent Sedge	Carex harbisonii	Endangered	No Status
American Chestnut	Castanea dentate	Special Concern	No Status
Northern Prickly-ash	Zanthoxylum americanum	Special Concern	No Status
Yellow Honeysuckle	Lonicera flava	Threatened	No Status
Michigan Lily	Lilium michiganense	Threatened	No Status
Purple Prairie-clover	Dalea purpurea	Endangered	No Status
Tennessee Purple Coneflower	Echinacea tennesseensis	Rare, Not State Listed	Candidate species
Shaggy False Gromwell	Onosmodium hispidissimum	Endangered	No Status
American Water-pennywort	Hydrocotyle americana	Endangered	No Status

Common Name	Scientific Name	State Status	Federal Status
Vertebrate Animals:			
Indiana Bat	Myotis sodalist	Endangered	Endangered
Slenderhead Darter	Percina phoxocephala	In Need of Management	No Status
Bachman's Sparrow	Aimophila aestivalis	Endangered	No Status
Bewick's Wren	Thryomanes bewickii	Endangered	No Status
Least Bittern	Ixobrychus exilis	In Need of Management	No Status
Smallscale Darter	Etheostoma microlepidum	In Need of Management	No Status
Allegheny Woodrat	Neotoma magister	In Need of Management	No Status
Barn Owl	Tyto alba	In Need of Management	No Status
Hellbender	Cryptobranchus alleganiensis	In Need of Management	No Status
Redband Darter	Etheostoma luteovinctum	In Need of Management	No Status
Peregrine Falcon	Falco peregrines	Endangered	No Status
Meadow Jumping Mouse	Zapus hudsonius	In Need of Management	No Status
Eastern Slender Glass Lizard	Ophisaurus attenuates longicaudus	In Need of Management	No Status
Blue Sucker	Cycleptus elongates	Threatened	No Status
Alligator Snapping Turtle	Macrochelys temminckii	In Need of Management	No Status
Lake Sturgeon	Acipenser fulvescens	Endangered	No Status
Cerulean Warbler	Dendroica cerulean	In Need of Management	No Status
Bald Eagle	Haliaeetus leucocephalus	In Need of Management	No Status
Streamside Salamander	Ambystoma barbouri	In Need of Management	No Status
Highfin Carpsucker	Carpiodes velifer	In Need of Management	No Status

Sources: TDEC, Division of Natural Areas, Rare Species by County, October, 2012; U.S. Fish & Wildlife Species Reports, February, 2013.
Notes: 1/ Species with no State/Federal status still have non-legal state and/or global rankings which expresses the rarity and vulnerability of the species.

Metropolitan Nashville Airport Authority

One Terminal Drive, Suite 501 • Nashville, TN 37214-4114 • 615-275-1600

June 12, 2012

Mr. Stephen Wilson, Community Planner
Federal Aviation Administration
Memphis Airports District Office
2862 Business Park Drive, Bldg. G
Memphis, TN 38118-1555

RE: **BNA Noise Exposure Map Update Future Tracks and Forecast Update**

Dear Mr. Wilson:

As you are aware, Harris Miller Miller & Hanson Inc. (HMMH) is assisting the Metropolitan Nashville Airport Authority (MNAA) to develop an updated Noise Exposure Map (NEM) submission for Nashville International Airport (BNA). The original schedule called for submission of the maps and associated documentation in 2011, with existing and forecast conditions maps representing calendar years 2011 and 2016, respectively. On November 22, 2010, you approved 2011 and 2016 forecasts, which were prepared for the project.

This is a request for your concurrence with several revisions that must be made to reflect conditions that have changed since the project commenced. The revisions relate to the NEM years, and associated fleet mixes and activity levels.

In late 2010 the Federal Aviation Administration (FAA) began the process of designing aRea NAVigation (RNAV) Standard Instrument Departure Procedures (SIDs), Required Navigational Performance (RNP) arrival procedures and RNAV Standard Terminal Arrival Routes (STARs) for BNA. The FAA kindly invited the MNAA and HMMH to participate in the Study Team process involved in developing these procedures. In the course of that process, it became apparent that some of the original procedure designs did not conform to existing FAA-approved noise abatement measures that the MNAA developed in prior Part 150 studies and subsequently implemented with FAA assistance. It was determined that the initial designs would negatively impact BNA's Noise Compatibility Program (NCP) that incudes coordinated noise abatement and compatible land use efforts that have successfully addressed a majority of noise concerns around the airport. Over the past year, MNAA and HMMH have worked with the FAA to adjust the procedure designs to address these concerns.

This process required the MNAA and HMMH to delay preparation of the updated NEMs to ensure that the future conditions map will accurately reflect the effects of the new procedures. The FAA submitted the procedures for final review in April of 2012, which will permit the updated NEMs to be submitted later this year. The submission of the NEM will precede FAA's completion of the environmental review for the new procedures. However, it is our understanding that sufficient environmental review is complete at this time to incorporate the RNAV/RNP procedures as designed into the forecast conditions NEM, since they will be implemented before the end of the forecast period. The MNAA respectfully requests your concurrence with this approach.

The delayed submission also will require the map years to be revised from 2011 and 2016 to 2012 and 2017. Since you approved the 2011 and 2016 forecasts, the FAA has released the 2012 Terminal Area Forecast (TAF) and the MNAA has completed forecasts for an ongoing BNA Master Plan Update. Table 1 compares the three forecasts. The table shows that the previously approved NEM forecasts do not vary from the latest TAF or Master Plan forecast by more than 7.2%, which is within FAA's approved 10% tolerance for forecasts within a five-year forecast period[1].

[1] FAA Order 5050.4B Paragraph 504.b, April 30, 2006, and "FAA Review and Approval of Aviation Forecasts," June 2008

Table 1. Nashville Noise Exposure Map Operations					
NEM Forecast		2012 TAF		2012 Master Plan	
Year	Annual Operations	Year	Annual Operations	Year	Annual Operations
2011	172,900	2012	178,090	2012	182,080
Difference from 2012 forecasts			3.0%		5.3%
2016	194,890	2017	204,838	2017	208,960
Difference from 2017 forecasts			5.1%		7.2%

The 2012 NEM will be modeled using the forecast and fleet mix approved for 2011. The 2017 NEM will be modeled using the forecast and fleet mix approved for 2016, with one exception: Stage 2 general aviation jets will be replaced with their Stage 3 counterpart to reflect the phase-out schedule set forth in the latest FAA Reauthorization Act (i.e. the Fal20 will be modeled as a Lear 35).

Another change in operations relates to military activity. Beginning in July 2012, over a 2-year period the Tennessee Army National Guard (TANG) will transition 15 helicopters (4 Lakota's and 11 Blackhawks) and one C-12 to BNA from their current base at the Smyrna Airport. In addition, TANG will transition its C-130's to other facilities. The net increase in based military aircraft is forecast to increase military operations. Specifically, the 3,146 C-130 operations previously forecasted for 2016 will be replaced by 9,302 C-12 and helicopter operations, increasing total military operations by 4,844 to 11,000 in 2016. The additional 6,156 military operations in 2016 result in an improved match with the latest TAF and the Master Plan forecast.

Table 2. Nashville Noise Exposure Map Operations with Military Adjustment					
NEM Forecast		2012 TAF		2012 Master Plan	
Year	Annual Operations	Year	Annual Operations	Year	Annual Operations
2011	172,900	2012	178,090	2012	182,080
Difference from 2012 forecasts			3.0%		5.3%
2016	201,046	2017	204,838	2017	208,960
Difference from 2017 forecasts			1.9%		3.9%

The MNAA requests your approval for use of the previously approved 2011 and 2016 forecasts, adjusted to reflect the Stage 1 and 2 general aviation jet aircraft type substitutions and the military aircraft type and activity level changes noted above, to represent 2012 and 2017 conditions.

Thank you for your consideration of these requests. Please do not hesitate to contact me with any questions.

Sincerely,

Butch Gelband, A.A.E., ACE
Director of Planning
Planning, Design and Construction

BG/scs

cc: Robert Ramsey Robert Mentzer

U.S. Department
of Transportation
Federal Aviation
Administration

Memphis Airports District Office
2862 Business Park Dr, Bldg G
Memphis, Tennessee 38118-1555
Phone 901-322-8180

June 26, 2012

Mr. Butch Gelband
Director of Planning
Metro Nashville Airport Authority
One Terminal Drive, Suite 501
Nashville, TN 37214

Noise Exposure Map Update
Metro Nashville Airport Authority (BNA)

Dear Mr. Gelband:

This correspondence is in response to your letter dated June 12, 2012 regarding the Noise Exposure Map (NEM) currently being updated at BNA.

The NEM will be updated to reflect the 2012-2017 NEM forecast period. We concur with adjustments made to the forecast military operations. Should you have any questions, please feel free to contact me at 901-322-8185.

Sincerely,

Stephen Wilson, Community Planner
Memphis Airports District Office

1.7: MILITARY OPERATIONS FORECAST

Military operations forecasts are based on TANG provided operations data for 2009, coupled with an annual growth factor estimated at five percent per year. This growth estimate is based on BNA's 118th Airlift Wing transitioning to a training role which will increase operations and likely decrease stage length. All military projected operations are assumed to be stage length one (S1.1). Transient military operations (i.e., military aircraft not attached to the 118th Airlift Wing and not based at BNA) are reported handled by Signature Flight Support, one of BNA's Fixed Based Operators (FBO). The transient aircraft mix is varied and difficult to predict through the forecast period; for the purposes of this forecast, it is assumed that the transient military fleet mix will remain constant.

Table 1.16 presents the 2009 baseline military operations data, while **Table 1.17** and **Table 1.18** present the 2011 and 2016 forecasted operations respectively.

Table 1.16: 2009 Military Operations

Aircraft Code	Model	Arrival Day	Arrival Night	Arrival Total	Departure Day SL1	Day SL2	Day SL3	Day Total	Departure Night SL1	Night SL2	Night SL3	Night Total	Departure Total	Operations Total
C130	C-130 Hercules	725	400	1,125	725	0	0	725	400	0	0	400	1,125	2,250
A10	A-10 Thunderbolt II	11	0	11	11	0	0	11	0	0	0	0	11	22
AV8	AV-8 Harrier	4	0	4	4	0	0	4	0	0	0	0	4	8
C12	C-12 Huron (BE 1900)	88	0	88	88	0	0	88	0	0	0	0	88	176
C21	C-21 Dlophin (Lear36)	34	0	34	34	0	0	34	0	0	0	0	34	68
C23	C-23 Sherpa (Short 330)	23	0	23	23	0	0	23	0	0	0	0	23	46
C-9	C-9 Skytrain (DC-9)	5	0	5	5	0	0	5	0	0	0	0	5	10
F15	F-15 Eagle	9	0	9	9	0	0	9	0	0	0	0	9	18
F16	F-16 Falcon	5	0	5	5	0	0	5	0	0	0	0	5	10
F18	F-18 Hornet	75	0	75	75	0	0	75	0	0	0	0	75	150
C37	Gulfstream V	19	0	19	19	0	0	19	0	0	0	0	19	38
T1	T-1 Jayhawk (BE 400A)	64	0	64	64	0	0	64	0	0	0	0	64	128
T34C	T-34C Turbo Mentor	46	0	46	46	0	0	46	0	0	0	0	46	92
T38	T-38 Talon	31	0	31	31	0	0	31	0	0	0	0	31	62
T45	T-45 Goshawk	26	0	26	26	0	0	26	0	0	0	0	26	52
T6	T-6 Texan II	131	0	131	131	0	0	131	0	0	0	0	131	262
V22	V-22 Osprey	14	0	14	14	0	0	14	0	0	0	0	14	28
Rotor	*All Types*	264	0	264	264	0	0	264	0	0	0	0	264	528
Total Operations		1,574	400	1,974	1,574	0	0	1,574	400	0	0	400	1,974	3,948

Source: TANG, ANNA, Signature Flight Support, JW Armstrong

Table 1.17: 2011 Military Operations Forecast

Aircraft Code	Model	Arrival			Departure									
					Day				Night					
		Day	Night	Arrival Total	SL1	SL2	SL3	Total	SL1	SL2	SL3	Total	Departure Total	Operations Total
C130	C-130 Hercules	797	441	1,238	797	0	0	797	441	0	0	441	1,238	2,476
A10	A-10 Thunderbolt II	11	0	11	11	0	0	11	0	0	0	0	11	22
AV8	AV-8 Harrier	4	0	4	4	0	0	4	0	0	0	0	4	8
C12	C-12 Huron (BE 1900)	88	0	88	88	0	0	88	0	0	0	0	88	176
C21	C-21 Dlophin (Lea36)	34	0	34	34	0	0	34	0	0	0	0	34	68
C23	C-23 Sherpa (Short 330)	23	0	23	23	0	0	23	0	0	0	0	23	46
C-9	C-9 Skytrain (DC-9)	5	0	5	5	0	0	5	0	0	0	0	5	10
F15	F-15 Eagle	9	0	9	9	0	0	9	0	0	0	0	9	18
F16	F-16 Falcon	5	0	5	5	0	0	5	0	0	0	0	5	10
F18	F-18 Hornet	75	0	75	75	0	0	75	0	0	0	0	75	150
C37	Gulfstream V	19	0	19	19	0	0	19	0	0	0	0	19	38
T1	T-1 Jayhawk (BE 400A)	64	0	64	64	0	0	64	0	0	0	0	64	128
T34C	T-34C Turbo Mentor	46	0	46	46	0	0	46	0	0	0	0	46	92
T38	T-38 Talon	31	0	31	31	0	0	31	0	0	0	0	31	62
T45	T-45 Goshawk	26	0	26	26	0	0	26	0	0	0	0	26	52
T6	T-6 Texan II	131	0	131	131	0	0	131	0	0	0	0	131	262
V22	V-22 Osprey	14	0	14	14	0	0	14	0	0	0	0	14	28
Rotor	*All Types*	264	0	264	264	0	0	264	0	0	0	0	264	528
Total Operations		1,646	441	2,087	1,646	0	0	1,646	441	0	0	441	2,087	4,174

Source: TAMG, MNAA, Signature Flight Support, HW Armstrong

Table 1.18: 2016 Military Operation Forecast

Aircraft Code	Model	Arrival			Departure								Departure Operations Total	Operations Total
					Day				Night					
		Day	Night	Arrival Total	SL1	SL2	SL3	Total	SL1	SL2	SL3	Total		
C130	C-130 Hercules	1,010	563	1,573	1,010	0	0	1,010	563	0	0	563	1,573	3,146
A10	A-10 Thunderbolt II	11	0	11	11	0	0	11	0	0	0	0	11	22
AV8	AV-8 Harrier	4	0	4	4	0	0	4	0	0	0	0	4	8
C12	C-12 Huron (BE 1900)	88	0	88	88	0	0	88	0	0	0	0	88	176
C21	C-21 Dlophin (Lea 36)	34	0	34	34	0	0	34	0	0	0	0	34	68
C23	C-23 Sherpa (Short 330)	23	0	23	23	0	0	23	0	0	0	0	23	46
C-9	C-9 Skytrain (DC-9)	5	0	5	5	0	0	5	0	0	0	0	5	10
F15	F-15 Eagle	9	0	9	9	0	0	9	0	0	0	0	9	18
F16	F-16 Falcon	5	0	5	5	0	0	5	0	0	0	0	5	10
F18	F-18 Hornet	75	0	75	75	0	0	75	0	0	0	0	75	150
C37	Gulfstream V	19	0	19	19	0	0	19	0	0	0	0	19	38
11	T-1 Jayhawk (BE 400A)	64	0	64	64	0	0	64	0	0	0	0	64	128
T34C	T-34C Turbo Mentor	46	0	46	46	0	0	46	0	0	0	0	46	92
T38	T-38 Talon	31	0	31	31	0	0	31	0	0	0	0	31	62
T45	T-45 Goshawk	26	0	26	26	0	0	26	0	0	0	0	26	52
T6	T-6 Texan II	131	0	131	131	0	0	131	0	0	0	0	131	262
V22	V-22 Osprey	14	0	14	14	0	0	14	0	0	0	0	14	28
Rotor	*All Types*	264	0	264	264	0	0	264	0	0	0	0	264	528
Total Operations		1,859	563	2,422	1,859	0	0	1,859	563	0	0	563	2,422	4,844

Source: TANG, MNAA, Signature Flight Support, BW Armstrong

The Tennessee Department of Safety is located about ¼ mile southeast and upgradient/uphill from the Property. The Tennessee Department of Safety has one 10,000-gallon gasoline UST in use; the remaining five USTs have been closed. No open LUST cases were identified at this location. This site is not expected to present a threat to human health or the environment at the Property.

Tanks at these sites listed with the HIST UST and UST databases are listed in Table 3.

5.2 State of Tennessee LUST Database.

U.S. Airways, located about ¼ mile north of the Property at or near the airport terminal, has closed LUST Case No. 1 at Facility ID 5191536. The Tennessee Department of Safety, located about ¼ mile southeast of the Property, has two closed LUST Cases No. 1 and 2 at Facility ID 0191408. The Nashville TN AFSS BNA, located about ½ mile northwest of the Property, has one closed LUST Case No. 1 at Facility ID 0190264. No information is available regarding the discovery or closure dates for these cases.

Van Dusen Airport Services, located about ¼ mile northwest of the Property, has a closed LUST Case No. 1 for Facility ID 5190060. The case was discovered in 1985. No information about the closure date is available for the LUST case.

The Harold W. Jordan Rehabilitation Center, located about ⅓ mile west of the Property, is listed on the LUST database with one closed LUST Case No. 1 at Facility ID 0190480; the case was discovered and closed in 1997.

Signature Flight Support Farm 2, located about ½ mile north of the Property, has one closed LUST Case No. 1 for Facility ID 5190059. The case was discovered and closed in 1989. A second closed LUST Case No. 1 for facility ID 5190086 is also listed for Signature Flight Support Hangar 7, presumably in approximately the same location. This case was opened and closed in 1990.

Stevens Aviation Inc., located about ½ mile north of the Property, has one closed LUST Case No. 1 for facility ID 5190716. This case was opened and closed in 1998.

None of the closed LUST cases are expected to pose a threat to human health or the environment at the Property.

5.3 State of Tennessee Historic LUST Database.

Van Dusen Airport Services, located about ¼ mile northwest of the Property, is listed in the Tennessee Historic LUST database. This database is no longer updated and is not available on-line. No further information is available about this site. This site is situated downhill and downgradient from the Property and is not expected to pose a threat to human health or the environment at the Property.

Table 3. Historic and Existing USTs Registered Within 1 Mile of the Property, Former TNANG 118th Airlift Wing Facilities, Berry Field, Nashville, Tennessee

Tank Location	Owner	Tank ID	Size and Contents	Notes and Database Listing
Onsite/ adjacent	TNANG	1	10000 gal gasoline	Installed 1958, last used 1995, closed 1995 [1, 2]
		2	10000 gal diesel	Installed 1984, last used 1995, closed 1995 [1, 2]
		3	25000 gal unknown	These tanks were probably the four JP-4 tanks in the original POL Storage Area. Installed 1957, last used 1998, closed 1998 [1, 2]
		4	25000 gal unknown	
		5	25000 gal unknown	
		6	25000 gal unknown	
		7	10000 gal diesel	Installed 1957, last used 1995, closed 1995 [1, 2]
		8	2000 gal unknown	Installed 1970, last used 1979, permanently out of use [1, 2]
		9	4000 gal kerosene	Installed 1970, last used 1979, closed 1995 [1, 2]
		10	500 gal unknown	Installed 1970, last used 1979, permanently out of use [1, 2]
		11	550 gal mixture	Installed 1984, last used 1987, closed 1995 [1, 2]
		12	280 gal unknown	Installed 1970, currently in use [1, 2]
		13	1000 gal gasoline	Installed 1900, last used 1970, closed 1995 [1, 2]
¼ mile N	U.S. Airways	1	300 gal diesel	Installed 1974, last used 1985, closed 1990 [1, 2]
		2	550 gal diesel	Installed 1980, last used 1997, closed 1998 [1, 2]
¼ mile N	FAA	1	2500 gal diesel	Installed 1989, currently in use [1, 2]
¼ mile NW	Hertz Rent A Car	1	10,000 gal gasoline	Installed 1963, last used 1988, closed 1988 [1, 2]
		2	10000 gal gasoline	
¼ mile NW	Budget Rent A Car	1	20000 gal gasoline	Installed 1976, last used 1990, closed 1990 [1, 2]
¼ mile NW	National Car Rental System	1	10000 gal gasoline	Installed 1981, last used 1991, closed 1991 [1, 2]
		2	8000 gal gasoline	Installed 1961, last used 1991, closed 1991 [1, 2]
¼ mile NW	Van Dusen Airport Services	1	25000 gal unknown	Installed 1979, last used 1990, permanently out of use [1, 2]
		2	25000 gal unknown	
		3	25000 gal unknown	Installed 1964, last used 1990, permanently out of use [1, 2]
		4	25000 gal unknown	
		5	25000 gal unknown	Installed 1969, last used 1990, permanently out of use [1, 2]
		6	25000 gal unknown	
		7	550 gal unknown	Installed 1964, last used 1990, permanently out of use [1, 2]
¼ mile SE	Tennessee Department of Safety	1	10000 gal gasoline	Installed 1978, last used 1998, closed 1998 [1, 2]
		2	2000 gal unknown	
		3	2000 gal unknown	
		4	285 gal gasoline	Installed 1981, last used 1990, closed 1998 [1, 2]
		5	10000 gal gasoline	Installed 1998, currently in use [1, 2]
		6	550 gal used oil	Installed 1978, last used 2003, closed 2004 [1, 2]

[continued on next page]

Table 3 (continued). Historic and Existing USTs Registered Within 1 Mile of the Property, Former TNANG 118th Airlift Wing Facilities, Berry Field, Nashville, Tennessee

Tank Location	Owner	Tank ID	Size and Contents	Notes and Database Listing
⅓ mile W	Harold W. Jordan Rehabilitation Center	1	550 gal diesel	Installed 1981, last used 1996, closed 1997 [1]
		1	550 gal diesel	Installed 1985, last used 1996, closed 1997 [1]
		2	550 gal diesel	Installed 1981, last used 1996, closed 1997 [1]
		3	550 gal diesel	
		4	550 gal diesel	Installed 1976, last used 1996, closed 1997 [1]
		5	550 gal diesel	
		6	550 gal diesel	Installed 1972, last used 1996, closed 1997 [1]
		7	20000 gal diesel	
		8	20000 gal diesel	Installed 1975, last used 1996, closed 1997 [1]
		9	3000 gal gasoline	Installed 1976, last used 1996, closed 1997 [1]
		10	2500 gal gasoline	Installed 1975, last used 1996, closed 1997 [1]
		11	550 gal diesel	Installed 1981, last used 1996, closed 1997 [1]
½ mile N	Nashville, TN AFSS BNA	1	2000 gal diesel	Installed 1985, last used 1997, closed 1997 [1]

Notes:
[1] Site listed in UST Database.
[2] Site listed in HIST UST Database.

5.4 Resource Conservation and Recovery Act (RCRA) Small Quantity Generators (SQGs) and Large Quantity Generators (LQGs).

The TNANG, located at the Property, is presently registered as an RCRA SQG, with no notices of violation (NOVs). Prior to 2006, the facility was registered as an LQG. Written informal NOVs were issued for the facility in 2002 regarding pre-transport storage and records/reporting deficiencies. There are no records of any formal violations occurring at the facility. This site is not expected to pose a threat to human health or the environment at the Property.

5.5 Delisted State Hazardous Waste Sites Database.

The TNANG facility at Berry Field was listed with the State Hazardous Waste Sites database in 1991 and was delisted in 2000. It appears that the hazardous waste site was the IRP Site No. 1, Hazardous Waste Accumulation Area. The site has been closed out and no further action is required. This site is not expected to pose a threat to human health or the environment at the Property.

5.6 LUST Trust Database.

The Texaco Fuel Farm, located about ⅓ mile north of the Property, is listed with the LUST Trust database as having a closed case status. This site is downhill and