ENVIRONMENTAL ASSESSMENT FOR IMPLEMENTATING THE INSTALLATION DEVELOPMENT PLAN AT DES MOINES AIR NATIONAL GUARD BASE DES MOINES, IOWA

DRAFT

Prepared for

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Disclosure Statement

The National Guard Bureau (NGB) is providing this draft Environmental Assessment (EA) for public comment in accordance with the National Environmental Policy Act of 1969 (NEPA) (Title 42 *United States Code* §§ 4321–4347), the President's Council on Environmental Quality NEPA-implementing regulations (Title 40 *Code of Federal Regulations* [CFR] Parts 1500–1508), and the U.S. Air Force's NEPA-implementing regulations, *Environmental Impact Analysis Process* (EIAP) (32 CFR Part 989). The EIAP requires that an opportunity be provided for public input on NGB decision-making, that the public be invited to offer inputs on alternative ways for NGB to accomplish its proposed action, and that comments be solicited on NGB's analysis of environmental effects. Public commenting enables NGB to make better informed decisions. Submitted letters and other written or oral comments could be published in the EA. As required by law, NGB will address comments received in the EA and make them available to the public. Providing personal information with comments is voluntary. NGB will use any personal information provided only to identify the commenter's desire to make a statement during the public comment portion of any public meeting or hearing or to fulfill requests for copies of the EA or associated documents. Private addresses for those requesting copies of the EA will be compiled into a mailing list. Only the names of the individuals making comments, however, and specific comments will be disclosed. Personal home addresses and phone numbers will not be published in the final EA.

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ACRONYMS AND ABBREVIATIONS

°F	degrees Fahrenheit
§	Section
132 WG	132d Wing
ACM	asbestos-containing material
ADAL	additions or alterations
AFI	Air Force Instruction
AFOSH	Air Force Office of Safety and Health
AFPD	Air Force Policy Directive
AJD	Approved Jurisdictional Determination
ANG	Air National Guard
ANGB	Air National Guard Base
APE	Area of Potential Effects
AQCR	Air Quality Control Region
ARNG	Army National Guard
AST	aboveground storage tank
AT/FP	Antiterrorism/Force Protection
B	Building
BASH	Bird/Wildlife Aircraft Strike Hazard
BGEPA	Bald and Golden Eagle Protection Act
BMP	best management practice
CAA	Clean Air Act
CAP	Civil Air Patrol
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO_2	carbon dioxide
CO	carbon monoxide
COCs	chemicals of concern
CWA	Clean Water Act
dB	decibel
dBA	decibels, A-weighted
DMO	distributed mission operations
DoD	Department of Defense
DoDI	Department of Defense Instruction

DTOC	Distributed Training Operations Center
EA	Environmental Assessment
ECF	entry control facility
EIAP	Environmental Impact Analysis Process
EISA	Energy Independence and Security Act
EO	Executive Order
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
ESQD	explosive safety quantity distance
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FONPA	Finding of No Practicable Alternative
FONSI	Finding of No Significant Impact
ft	feet
GHG	Greenhouse gas
HASP	Health and Safety Plan
IDP	Installation Development Plan
IICEP	Interagency and Intergovernmental Coordination for Environmental Planning
IRP	Installation Restoration Program
ISR	intelligence, surveillance, and reconnaissance
LBP	lead-based paint
MBTA	Migratory Bird Treaty Act
MMP	Media Management Plan
MOA	Memorandum of Agreement
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NGB	National Guard Bureau
NHPA	National Historic Preservation Act
NLEB	northern long-eared bat
NO_2	nitrogen dioxide
NO_x	Nitrogen oxides
NOA	notice of availability
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places

NRPA	Natural Resources Protection Act
O_3	ozone
OSHA	Occupational Safety and Health Administration
Pb	lead
PCB	polychlorinated biphenyls
PFAS	per- and polyfluoroalkyl substances
PM	particulate matter
$PM_{2.5}$	particulate matter 2.5 micrometers and smaller
PM_{10}	particulate matter 10 micrometers and smaller
POL	petroleum, oil, and lubricants
PPE	personal protective equipment
PSD	prevention of significant deterioration
QD	Quantity-Distance
RCRA	Resource Conservation and Recovery Act
RPA	remotely piloted aircraft
SF	square feet
SFHA	Special Flood Hazard Area
SFS	Security Forces Squadron
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SO_2	sulfur dioxide
SO_x	Sulfur oxides
SPCC	Spill Prevention, Control and Countermeasures
SWPPP	Stormwater Pollution Prevention Plan
SY	square yards
tpy	tons per year
U.S.C.	United States Code
UFC	Unified Facilities Criteria
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USPS	U.S. Postal Service
UST	Underground Storage Tank
VOCs	Volatile organic compounds
WOTUS	Waters of the United States

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1.0 INTRODUCTION

The National Guard Bureau (NGB) has prepared this Environmental Assessment (EA) to consider the potential consequences to the human and natural environments associated with a proposed action at the 132d Wing (132 WG) of the Iowa Air National Guard (ANG) at Des Moines Air National Guard Base (ANGB) in Des Moines, Iowa. This EA also identifies applicable best management practices (BMPs) that would avoid or minimize effects resulting from implementing the Proposed Action or alternatives (to include the No Action Alternative).

NGB has prepared this EA pursuant to the National Environmental Policy Act of 1969 (NEPA) (Title 42 *United States Code* [U.S.C.] §§ 4321–4347), Council on Environmental Quality (CEQ) *Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act* (Title 40 *Code of Federal Regulation*s [CFR] Parts 1500–1508), and the *Environmental Impact Analysis Process* (EIAP), the U.S. Air Force (Air Force) NEPA-implementing regulations in 32 CFR Part 989. NGB is the lead agency for this NEPA analysis.

As described in 32 CFR Part 989, the NEPA process is intended to provide the Air Force planners and decision-makers with a meaningful review of environmental considerations associated with a given action. The analysis set forth in this EA allows the decision-makers to carefully balance the protection of these environmental resources while fulfilling the Air Force's essential roles, including national defense, and ANG's mission to provide adequate training facilities in support of the military mission. Both environmental staff and military personnel within the ANG were consulted and provided guidance on the development of this EA.

Per amendments to 10 U.S.C. § 10501, described in Department of Defense (DoD) Directive 5105.77, the NGB is a joint activity of the DoD. NGB serves as a channel of communication and funding between the Air Force and State Air National Guard organizations in the 54 U.S. states, territories, and the District of Columbia. The National Guard Bureau Air Directorate (NGB-CF) oversees the NEPA process for Air National Guard facilities, as required under NEPA, CEQ Regulations, and 32 CFR Part 989.

The Proposed Action is to adopt and implement the Des Moines ANGB Installation Development Plan (IDP). The IDP, which was finalized in May 2018, is the result of a comprehensive planning process and provides the 132 WG with a planning, programming, and development strategy that addresses current and programmed mission deficiencies and opportunities at the base.

This EA provides a full analysis of the environmental effects that could potentially result from the proposed short-range facility improvement projects, which would be implemented within approximately 5 years. It also provides sufficient information and analysis of the long-range facility improvement projects, which would be implemented beyond 5 years, to the extent to which project-specific information is available so future NEPA analyses that tier to this EA can effectively reference the broad analyses it presents. Future construction projects and other actions will

undergo specific NEPA analyses as needed. In accordance with 40 CFR § 1501.11, a future NEPA document that tiers to this EA must include a finding that the conditions and environmental effects described in this EA are still valid and/or address any exceptions. Tiering can reduce or eliminate redundant and duplicative analyses and effectively address cumulative effects. Using subsequent tiered NEPA reviews for the long-term facility improvement projects would allow for a focused review at the appropriate level of NEPA analysis when specific details of project planning are available in the future.

Based on the analysis in this EA, NGB will determine whether to issue a Finding of No Significant Impact (FONSI) and then proceed with the Proposed Action, issue a Notice of Intent to prepare an Environmental Impact Statement, or abandon the Proposed Action. As required by NEPA and its implementing regulations, preparation of an environmental document must precede final decisions regarding the proposed projects and the document must be available to inform decision makers of the potential environmental effects of selecting the Proposed Action, reasonable alternatives, or the No Action Alternative.

1.1 PURPOSE AND NEED FOR THE ACTION

The purpose of the Proposed Action is to provide the 132 WG with properly sized and configured facilities, infrastructure, and services outlined in the IDP that are needed to effectively accomplish its mission. The proposed construction and renovation projects as well as the demolition of excess and inefficient structures would conserve energy and resources through consolidation and modernization and are needed to enable Des Moines ANGB to maintain the level of readiness necessary to support its mission.

All the proposed IDP projects would meet the purpose of and need for the Proposed Action. The period of construction, demolition, and renovation activities for the short-range facility improvements would be approximately 5 years. Long-range facility improvement projects, which would be implemented beyond 5 years, will receive a hard look as required by NEPA when they are ripe for analysis, and NGB would prepare documentation for any projects requiring additional or updated NEPA analysis.

1.2 INSTALLATION LOCATION AND DESCRIPTION

Des Moines ANGB, home of the 132 WG, is located at Des Moines International Airport, a civilian airport owned and operated by the City of Des Moines (the state capital). The airport is located within the city's corporate limits, approximately 4.5 miles southwest of the Des Moines Central Business District in Polk County, Iowa (Figure 1-1). The United States Government is leased by the City of Des Moines, Iowa to use and occupy a portion of Des Moines International Airport (171.52 acres) for training and support of the Iowa ANG. A supplemental license agreement between the Air Force and the State of Iowa grants the Department of Army the right to use and occupy 32.67 acres, including Building (B) 100, 101, 105, 124, 125, 132, and 160, that constitute

the Iowa Army National Guard (ARNG) footprint. The base is bound on the southeast and southwest by Des Moines International Airport; on the northeast by McKinley Avenue and residential housing, civic institutions, and commercial businesses; and on the northwest by undeveloped land.

The mission of the 132 WG has both federal and state aspects. On the federal level, the mission is to operate long-endurance remotely piloted aircraft (RPA); provide intelligence, surveillance, and reconnaissance targeting; and execute cyberspace protection, preparedness, and incident response missions for homeland defense, the Air Force, and the state of Iowa. There are currently no RPAs physically assigned to Des Moines ANGB and the 132 WG uses aircraft located elsewhere for its missions. The 132 WG also provides domestic warfighter training opportunities and persistent distributed mission operations (DMO) capabilities through the wing's Distributed Training Operations Center (DTOC), a component of the ANG DMO Program. On the state level, the 132 WG's mission is to provide logistical and support services to the community and the state of Iowa in the event of national emergencies (USAF 2021). The RC-26 airframe and aircraft associated with the Civil Air Patrol (CAP) reside within the ARNG footprint at Des Moines ANGB per a Memorandum of Agreement (MOA) with the Iowa ARNG.

1.3 SUMMARY OF KEY ENVIRONMENTAL STUDY REQUIREMENTS

1.3.1 National Environmental Policy Act

NEPA requires federal agencies to consider the potential environmental consequences of proposed actions in their decision-making process. The intent of NEPA is to protect, restore, and enhance the environment through well-informed federal decisions. The CEQ was established under NEPA to implement and oversee federal policy in this process. The CEQ subsequently issued its NEPA regulations provided in 40 CFR Parts 1500–1508, updating them in 2020. The activities addressed in this document constitute a federal action and, therefore, must be assessed in accordance with NEPA. The Air Force implements the EIAP in 32 CFR Part 989 to achieve and maintain compliance with NEPA and the CEQ regulations.

1.3.2 Antiterrorism/Force Protection

The Department of Defense (DoD) has developed antiterrorism/force protection (AT/FP) standards designed to reduce the likelihood of physical damage and mass casualties from potential terrorist attacks. Antiterrorism standards are based on Department of Defense Instruction (DoDI) 2000.16 (2006), *DoD Antiterrorism (AT) Standards*; Air Force Instruction (AFI) 10-245 (2017), *Antiterrorism (AT)*; and AFI 31-118 (2017), *Security*. These documents establish guidance and procedures to reduce the vulnerability of the installation and personnel to terrorism or terrorist activities. Unified Facilities Criteria (UFC) 4-010-01, *DoD Minimum Anti-Terrorism Standards for Buildings*, outlines various planning, construction, and operational standards that address potential terrorist threats.

Figure 1-1: Location Map
Air National Guard 132 WG, Des Moines, Polk County, IA

1.3.3 Air Quality

The Clean Air Act (CAA) (42 U.S.C. §§ 7401–7671q) provided the authority for the U.S. Environmental Protection Agency (EPA) to establish nationwide air quality standards and regulate emission of toxic air pollutants to protect public health and welfare and to regulate hazardous air pollutants. Federal standards, known as the National Ambient Air Quality Standards (NAAQS), were developed for six criteria pollutants: carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO_2), ozone (O_3), particulate matter (PM), and sulfur dioxide (SO_2). The CAA also requires that each state prepare a State Implementation Plan (SIP) for maintaining and improving air quality and attaining the NAAQS. Under the CAA Amendments of 1990, federal agencies are required to determine whether their undertakings conform to the applicable SIP. In addition, they must demonstrate that their actions will not cause or contribute to a new violation of the NAAQS; increase the frequency or severity of any existing violation; or delay timely attainment of any standard, emission reduction, or milestone contained in the SIP. EPA's General Conformity Rule (40 CFR Part 93, Subpart B) requires a proponent in a maintenance or nonattainment area to perform an analysis to determine if its Proposed Action would conform to the SIP. Under the General Conformity Rule, the action is exempt if the total direct and indirect emissions from the Proposed Action are below the *de minimis* levels.

1.3.4 Cultural Resources

The National Historic Preservation Act of 1966 (NHPA) (54 U.S.C. § 300101, *et seq*.) established the National Register of Historic Places (NRHP) and the Advisory Council on Historic Preservation, outlining procedures for the management of cultural resources on federal property. Cultural resources can include archaeological remains, architectural structures, and traditional cultural properties such as ancestral settlements, historic trails, and places where significant historic events occurred. NHPA requires federal agencies to consider potential effects on cultural resources that are listed, nominated, or eligible for listing on the NRHP; designated as a National Historic Landmark; or valued by modern Native Americans for maintaining their traditional culture. NHPA Section 106 requires federal agencies to consult with the State Historic Preservation Officer (SHPO) if their undertakings might affect such resources. Regulations detailed in 36 CFR Part 800, *Protection of Historic and Cultural Properties*, provide an explicit set of procedures that ensures federal agencies meet their obligations under the NHPA, which includes inventorying resources and consultation with the SHPO.

The Archaeological Resources Protection Act of 1979 (16 U.S.C. § 470aa-mm) was enacted to protect archaeological resources and sites on public and Native American lands in addition to encouraging cooperation and exchange of information between governmental authorities, professionals, and private individuals. The act establishes civil and criminal penalties for destroying and altering cultural resources. AFI 90-2002, *Interactions with Federally Recognized Tribes*, implements the Air Force program in accordance with DoDI 4710.02, *DoD Interactions*

with Federally Recognized Tribes, and contains requirements that must be followed as part of analyzing proposed actions.

1.3.5 Endangered Species

The Endangered Species Act (ESA) (16 U.S.C. §§ 1531–1544) established measures for the protection of plant and animal species federally listed as threatened or endangered and for the conservation of habitats critical to the continued existence of those species. Federal agencies must evaluate the effects of their proposed actions in accordance with a set of defined procedures, which can include preparing a Biological Assessment and can require formal consultation with the U.S. Fish and Wildlife Service (USFWS) under ESA Section 7.

1.3.6 Hazardous Materials, Waste, Solid Waste, and Other Contaminants

Hazardous materials are defined by regulations in 49 CFR § 171.8, and transportation of hazardous materials is regulated by the U.S. Department of Transportation as detailed in 49 CFR Parts 105–180. Hazardous wastes are defined under the Resource Conservation and Recovery Act (RCRA) in 42 U.S.C. § 6903(5), as amended by the Hazardous and Solid Waste Amendments (40 CFR Parts 260–273). Special hazards are substances that could pose a risk to human health (i.e., asbestos-containing materials [ACM], lead-based paint [LBP], and polychlorinated biphenyls [PCBs]) and are addressed separately from other hazardous substances under the Toxic Substances Control Act (15 U.S.C. § 2602 *et seq*.). Information on the location, quantity, and condition of hazardous materials and wastes assists in determining the significance of a proposed action.

1.3.7 Water Resources

The Federal Water Pollution Control Act (also known as the Clean Water Act [CWA]) has a goal to restore and maintain the chemical, physical, and biological integrity of waters (lakes, rivers, streams, wetlands, estuaries, and coastal zones) throughout the nation. As such, the CWA establishes the basic structure for regulating discharges of pollutants into the Waters of the United States (WOTUS) and regulating water quality standards for surface waters. Pertinent sections of the CWA include, but are not limited to, the following:

- Section 401 gives States and authorized tribes the authority to grant, deny, or waive water quality certification of proposed federally licensed or permitted activities that may result in a discharge into WOTUS.
- Section 402 requires that all construction sites on an acre or greater of land, as well as municipal, industrial, and commercial facilities discharging wastewater or stormwater directly from a point source (a pipe, ditch, or channel) into a surface water of the United States (a lake, river, and/or ocean), must obtain permission under the National Pollutant Discharge Elimination System (NPDES) permit.

- Section 404 regulates development activities in WOTUS, including wetlands. It requires a permit from USACE for dredging and filling of WOTUS, including wetlands.

The Rivers and Harbors Act prohibits the construction of any structure such as, but not limited to, bridges, dams, dikes, causeways, wharfs, piers, and jetties and also prohibits the excavation and/or filling within navigable waterways without issuance of a Section 10 permit from USACE.

Section 438 of the Energy Independence and Security Act (EISA) of 2007 (42 U.S.C. § 17094) requires all federal agencies, including the DoD, to reduce stormwater runoff from federal development projects with a footprint that exceeds 5,000 square feet (SF). These projects shall use site planning, design, construction, and maintenance strategies for the property and maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the property with regard to the temperature, rate, volume, and duration of flow. Federal agencies are required to use the *Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects* to comply with the requirements of EISA Section 438. The Technical Guidance was prepared by EPA, EPA 841-B-09-001, December 2009 as part of stormwater management design.

Executive Order (EO) 11990, *Protection of Wetlands*, is intended to minimize the destruction, loss, or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands. Federal agencies are required to consider alternatives to the use of wetland sites and to limit potential damage if an activity affecting a wetland cannot be avoided.

EO 11988, *Floodplain Management*, requires federal agencies to avoid to the greatest extent possible the long- and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative.

The Federal Emergency Management Agency (FEMA) regulates floodplains, which are recognized as Special Flood Hazard Areas (SFHAs) on the Flood Insurance Rate Maps. SFHAs are defined as areas that will be inundated by a flood event having a 1 percent chance of being equaled or exceeded in any given year (commonly referred to as the 100-year floodplain).

1.3.8 Other Executive Orders and Laws

Environmental Justice. EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, requires that, to the greatest extent practicable and permitted by law, each federal agency make achieving environmental justice part of its mission. Federal agencies are required to identify and address any disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States.

Protection of Children. EO 13045, *Protection of Children from Environmental Health and Safety Risks*, recognizes children may suffer disproportionately from environmental health risks and safety risks. The EO prioritizes identification and assessment of environmental health and safety risks that may affect children. It also promotes federal agency policies, programs, activities, and standards to address environmental risks and safety risks to children.

Invasive Species. EO 13751, *Safeguarding the Nation from the Impacts of Invasive Species*, calls for actions to:

> …prevent the introduction, establishment, and spread of invasive species; detect and respond to eradicate or control populations in a cost-effective manner that minimizes human, animal, plant, and environmental health risks…
>
> …using the laws of the United States of America, including NEPA as amended (42 U.S.C. § 4321 et seq.), the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 (16 U.S.C. § 4701 *et seq*.), the Plant Protection Act (7 U.S.C. § 7701 *et seq.*), the Lacey Act, as amended (18 U.S.C. 42, 16 U.S.C. §§ 3371–3378 *et seq*.), ESA as amended (16 U.S.C. § 1531 et seq.), the Noxious Weed Control and Eradication Act of 2004 (7 U.S.C. § 7781 *et seq*.), and other pertinent statutes.

EO 13751 amends and replaces the earlier EO 13112, *Invasive Species*.

Migratory Birds. EO 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds*, furthers the intent of the Migratory Bird Treaty Act (MBTA) (16 U.S.C. §§ 703–711) to ensure the conservation of migratory birds and their habitats. The EO further ensures that environmental analysis of federal actions required by NEPA and other established environmental review processes evaluate the effects of actions and agency plans on migratory birds, with an emphasis on species of concern.

Farmland Protection. The Farmland Protection Policy Act of 1981 (7 U.S.C. § 4201) requires federal agencies to identify adverse impacts to prime and/or unique farmlands within a project action area.

1.4 RESOURCES NOT CARRIED FORWARD FOR DETAILED ANALYSIS

The determination of issues to be analyzed in detail in this EA and those not carried forward for detailed analysis is part of the EA scoping process as described in 40 CFR § 1501.9(f)(1), which states that issues addressed in prior environmental reviews or that are not significant may be eliminated from discussion in the EA. The following environmental resource areas were found to have no significance to the Proposed Action, alternatives, or No Action Alternative, as there would be no or negligible potential for direct, indirect, or effects considered with other foreseeable future actions as a result of implementing the Proposed Action or alternatives: aesthetics and visual resources, airspace, geological resources, land use, and socioeconomics (including environmental justice and protection of children).

Aesthetics and Visual Resources. The Proposed Action would have no appreciable effects on aesthetics or visual resources. All the project sites are on Des Moines ANGB. No aesthetically sensitive areas are located within the viewshed of the proposed sites. The existing view is of an ANGB with supporting infrastructure. The visual environment is typical of a military facility setting and does not constitute a unique or sensitive viewshed of public interest. The existing facilities are equipped with lighting throughout the parking areas, pedestrian walkways, and controlled access points. During the construction and demolition activities on Des Moines ANGB, the visual and aesthetic characteristics of areas undergoing development would be temporarily altered by the use of construction equipment and the delivery and stockpiling of construction materials. Following completion of construction, the proposed facilities and associated infrastructure would remain as permanent visual features within the viewshed; however, the principal visual features and lighting of the facility would remain consistent with existing conditions. The effects would be negligible; therefore, aesthetics and visual resources were not carried forward for detailed analysis in this EA.

Airspace. The Proposed Action would have no effect on airspace. There would be no changes in restricted airspace, the airfield, or aircraft operations as a result of the Proposed Action. The effects would be negligible; if necessary, the 132 WG would file Form FAA 7460-1, *Notice of Proposed Construction or Alteration*, with the Federal Aviation Administration (FAA). Therefore, airspace was not carried forward for detailed analysis in this EA.

Geological Resources. The Proposed Action is not expected to result in any appreciable effects on geological resources. The proposed projects would be in previously disturbed and graded locations. Ground-disturbing activities would be temporary and standard erosion control measures would be implemented to reduce or eliminate any potential soil impacts. Proposed activities would not significantly alter the topography of the existing terrain nor would they be located near identified geological hazards. Their effects would be negligible; therefore, geological resources were not carried forward for detailed analysis in this EA.

Land Use. The Proposed Action is not expected to result in any appreciable effects on land use. The Proposed Action would not change current land-use patterns. The proposed activities would occur within the boundaries of the military installation and would not alter the current on- or off-base land-use classifications or zoning. The Proposed Action is consistent with 132 WG planning policies and guidelines and projects have been designed and sited to be compatible with current land use. The effects would be negligible; therefore, land use was not carried forward for detailed analysis in this EA.

Socioeconomics (including environmental justice and protection of children). The Proposed Action would have no appreciable effects on the local or regional socioeconomic environment. It would have negligible, short-term beneficial effects associated with employment of construction personnel and purchases of construction equipment, materials, and supplies. The

Proposed Action would not result in a long-term, permanent increase or decrease in employment or population, as the action does not include changes in the number of military or civilian operations personnel. Therefore, socioeconomics was not carried forward for detailed analysis in this EA.

The Proposed Action would have no appreciable effects on environmental justice. The threshold used for identifying minority and low-income populations per EO 12898 is consistent with CEQ guidance (CEQ 1997) for identifying minority population using either the 50 percent threshold or another percentage deemed "meaningfully greater" than the percentage of minority or low-income individuals in the general population. CEQ guidance does not provide a numerical definition of the term "meaningfully greater." For this analysis, the significance thresholds for environmental justice concerns were established at the state level. The county was determined to contain a meaningfully greater percentage of minority or low-income populations if the percentage substantially exceeds (by 20 percentage points or more) the state average or exceeds 50 percent of the population. The percentage of minority or low-income populations in Polk County, where Des Moines ANGB is located, does not substantially exceed the state averages. The percentage of residents with income below the 2019 poverty threshold for Polk County was 10.1 percent (Iowa's was 11.2 percent), and the county's minority population was 15.1 percent of the total county population (Iowa's minority population was 9.4 percent) (U.S. Census Bureau 2021). The Proposed Action would not result in disproportionate adverse environmental or health effects on low-income or minority populations; therefore, environmental justice was not carried forward for detailed analysis in this EA.

The Proposed Action would have no appreciable effects on the health and safety of children. Des Moines ANGB has no family housing or facilities where children typically are present (e.g., childcare centers or schools). It is a fenced facility with controlled entry points. Children would have no access to the on-base project sites. Therefore, protection of children was not carried forward for detailed analysis in this EA.

1.5 PUBLIC AND AGENCY REVIEW OF ENVIRONMENTAL ASSESSMENT

NGB provides opportunities for the public to participate in the NEPA process to promote open communication and improve their decision-making process. All individuals and organizations with an interest in the Proposed Action and alternatives are encouraged to participate in the process.

EO 12372, *Intergovernmental Review of Federal Programs*, requires intergovernmental notifications prior to making any detailed statement of environmental effects. Through the process of Interagency and Intergovernmental Coordination for Environmental Planning (IICEP), the project proponent must notify concerned federal, state, and local agencies of the Proposed Action and allow them sufficient time to evaluate potential environmental effects. Through the IICEP process, NGB notified relevant federal, state, and local agencies and tribes and allowed them 30

days to make known their environmental concerns about the Proposed Action. Appendix A provides copies of all correspondence.

NEPA and the EIAP require public review of the EA before approval of the FONSI and implementation of the Proposed Action. A Notice of Availability (NOA) of the Draft EA for public review was published in the *Des Moines Register* on July 8, 2022. The Draft EA was made available for public review at the Des Moines Public Library, Central Location, 1000 Grand Avenue, Des Moines, IA 50309; and in electronic form at https://www.132dwing.ang.af.mil/. Appendix B provides a copy of the NOA.

2.0 DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

This section presents a detailed description of the Proposed Action, which is to adopt and implement the IDP. The details of the Proposed Action form the basis for the analysis of potential environmental effects presented in Section 3.0 of this EA. This section also discusses proposed alternatives, including the No Action Alternative.

This EA analyzes implementing projects in the IDP Constrained Concept and other projects identified by 132 WG as well as alternatives to those projects presented in the IDP Unconstrained Concept. This EA also assumes all short-range facility improvement projects would be implemented within approximately 5 years. Long-range facility improvement projects, which would be implemented beyond 5 years, will receive a hard look as required by NEPA at an appropriate time, and ANG would prepare documentation for any projects requiring additional or updated NEPA analysis tiering off the EA, when specific project planning details are available. If this EA results in a FONSI, the 132 WG could implement any projects or project alternatives fully assessed in this EA.

2.1 PROPOSED ACTION AND ALTERNATIVES

2.1.1 Proposed Action

Under the Proposed Action, the 132 WG would implement the IDP construction, demolition, and renovation projects listed in Table 2-1. Figure 2-1 shows the proposed project sites. Photos of project locations are provided at the end of this section. The Proposed Action is the 132 WG's Preferred Alternative. There would be no appreciable changes in Des Moines ANGB operations as a result of the Proposed Action. The following subsections discuss the construction, demolition, and renovation aspects of the projects.

Table 2-1. Summary of Proposed Projects

Project Number	Project title (ANG project number)	
Short-Range Projects (implemented within approximately 5 years)		
7	**Repair Grounds and Grading (FFAN212001)**	
	Project Type	Renovation and Repair.
	Execution Year (short- or long-range)	2022 (short-range).
	Project Need	Mitigate ongoing washout damage to adjacent fencing and allow personnel and equipment accessibility for routine maintenance.
	Proposed Action (Preferred Alternative)	Repair and regrading of approximately 19,000 SF adjacent to the flight line, including piping of approximately 1,504 linear feet of a jurisdictional WOTUS, to correct ongoing drainage washout issues.
	Alternative 1	Same as Proposed Action.
	No Action Alternative	Maintain existing grading conditions, which allow continued disrepair and damage to government property and contribute to a wildlife attractant directly adjacent to the flight line, which would not meet airport requirements.
8	**Relocate/Construct a Fuel Station (FFAN012051, FFAN199280, FFAN162280) (Defense Logistics Agency [DLA] Projects)**	

Project Number	Project title (ANG project number)	
	Project Type	Construction.
	Execution Year (short- or long-range)	2022 (short-range).
	Project Need	The 132 WG requires a properly sized and configured vehicle fueling station to support the unit's mission.
	Proposed Action (Preferred Alternative)	Install one 5,000-gallon unleaded aboveground storage tank (AST), one 5,000-gallon diesel AST, and all required supporting infrastructure (comm to pumps, overhang or cover, spill prevention, electric, etc.). *Project note*: Coordination with DLA, A4O, and A4RMF would need to be conducted.
	Alternative 1	Same as Proposed Action, only sited at location 8b (See Figure 2-1).
	No Action Alternative	Do not relocate existing fuel station, which would not support mission requirements.
Long-Range Projects (implementation beyond 5-7 years)		
1	**Construct Consolidated Support Facility (FFAN189110)**	
	Project Type	Construction and Demolition.
	Execution Year (short- or long-range)	2030 (long-range).
	Project Need	Currently B110 and B231 do not meet space requirements, have inefficient configurations, high maintenance costs, and ongoing safety issues (foundation failure, no fire suppression system, and wildlife infiltration) and do not meet AT/FP standoff requirements. Additionally, the 132 WG is transferring 134,000 SF of facilities to the ARNG, creating a severe lack of on-base space for administrative and training functions. Construction of a new facility would improve operational efficiency by locating various administrative and training capabilities in one appropriately sized, configured, and modernized space that meets DoD standards and AT/FP standoff requirements.
	Proposed Action (Preferred Alternative)	• Construct a new 27,250 SF consolidated support facility in the footprint of B231 compliant with AT/FP and ANG Handbook 32-1084 requirements. • Demolish B110 (26,932 SF) and B231 (3,057 SF).
	Alternative 1	Same as Proposed Action.
	No Action Alternative	Maintain buildings in current condition and configuration, which would not address health and safety concerns, meet AT/FP requirements, or support mission requirements.
2	**Addition or Alteration (ADAL) of DTOC (FFAN202180, companion project FFAN189180)**	
	Project Type	Construction and Renovation.
	Execution Year (short- or long-range)	2030 (long-range).
	Project Need	Existing facility, B180, is undersized, lacks adequate storage for mission equipment, is located on the ARNG portion of the base, and does not meet AT/FP setback requirements.
	Proposed Action (Preferred Alternative)	• Construct a 12,320 SF addition or alteration of existing B180. • Renovate B180 to reconfigure the space to meet unique needs of the DTOC, provide on-site storage of mission equipment, and meet AT/FP requirements.
	Alternative 1	Construct a new 29,916 SF DTOC facility properly sized and configured within the footprint of Des Moines ANGB, compliant with AT/FP setback requirements, sited at location 2b (see Figure 2-1).
	No Action Alternative	Maintain building in current condition and configuration, which would not as effectively accommodate the DTOC mission or meet AT/FP requirements.
3	**Repair/Replace Base-Wide Utilities (FFAN082191 and FFAN982047)**	
	Project Type	Renovation/Repair.
	Execution Year (short- or long-range)	2031 (long-range).

Project Number	Project title (ANG project number)	
	Project Need	Existing water and natural gas infrastructure is outdated or has structural deficiencies, creating the potential for failure, health and safety issues, and increased operation and maintenance costs, and does not support mission requirements.
	Proposed Action (Preferred Alternative)	• Repair/upgrade utility lines (water, sewer, electric, gas, communication). • Repair/upgrade natural gas distribution system.
	Alternative 1	Same as Proposed Action.
	No Action Alternative	Maintain and use utility infrastructure in current condition (water lines failing due to corrosion and systemic issues with natural gas service), which would lead to increased maintenance costs addressing known issues and fail to support mission requirements if utility services fail or are otherwise inoperable.
4	**Repair/Replace Base Roads (FFAN982044)**	
	Project Type	Renovation/Repair.
	Execution Year (short- or long-range)	2031 (long-range).
	Project Need	Existing transportation infrastructure is outdated (adequate for A-7 mission requirements) or has structural deficiencies, creating the potential for failure and increased operation and maintenance costs, and does not support current (DTOC) mission requirements. 1,100 square yards (SY) of parking is slated for demolition due to AT/FP standards and will result in a parking shortfall.
	Proposed Action (Preferred Alternative)	• Construct 1,000 SY of new parking compliant with AT/FP requirements. • Demolish 1,100 SY of existing parking in compliance with AT/FP requirements. • Assess and repair all base roads, damaged subbase, and pavements with Portland cement concrete. • Repair, grade, and install stormwater drainage to address flooding issues.
	Alternative 1	Same as Proposed Action.
	No Action Alternative	Maintain and use current transportation infrastructure with inadequate parking (subbase failures, pavement degradation, rutting due to heavy DTOC equipment, and deficient stormwater management), which would lead to increased maintenance costs, continued health, safety, and flooding issues at B160, and failure to support mission requirements.
5	**Construct a New Entry Control Facility (ECF) (FFAN189062)**	
	Project Type	Construction.
	Execution Year (short- or long-range)	2030 (long-range).
	Project Need	The existing main ECF at McKinley Avenue does not meet AT/FP standoff or UFC requirements for vehicle inspection areas and does not provide adequate access for large commercial vehicles.
	Proposed Action (Preferred Alternative)	Construct a new main ECF off McKinley Avenue at Shooting Star Road that meets AT/FP setback requirements and UFC vehicle inspection area standards and provides adequate access to large vehicles.
	Alternative 1	Same as Proposed Action.
	No Action Alternative	Maintain and use existing main ECF in current location and condition, which would not address AT/FP requirements, UFC compliance, or security vulnerabilities.
6	**Construct a New Disaster Preparation/ Deployment Processing Center/ Gymnasium (FFAN209276)**	
	Project Type	Construction and Demolition.
	Execution Year (short- or long-range)	2030 (long-range).

Project Number	Project title (ANG project number)	
	Project Need	Due to a real property transfer of assets to the Iowa Army National Guard, Des Moines ANGB currently operates without a dedicated Deployment Processing facility or on-base gymnasium facilities; and the existing disaster preparation area is undersized.
	Proposed Action (Preferred Alternative)	• Construct a new 14,600 SF combined facility for dedicated disaster preparation, deployment processing, and base gymnasium activities. • Demolish B276 (2,317 SF) and B302 (57 SF).
	Alternative 1	Same as Proposed Action, only sited at location 6b (see Figure 2-1).
	No Action Alternative	Continue to operate without a dedicated Deployment Processing facility or on-base gymnasium facilities; and maintain and use the existing disaster preparation area in current condition, which would not support mission requirements, address safety concerns, or meet AT/FP requirements.

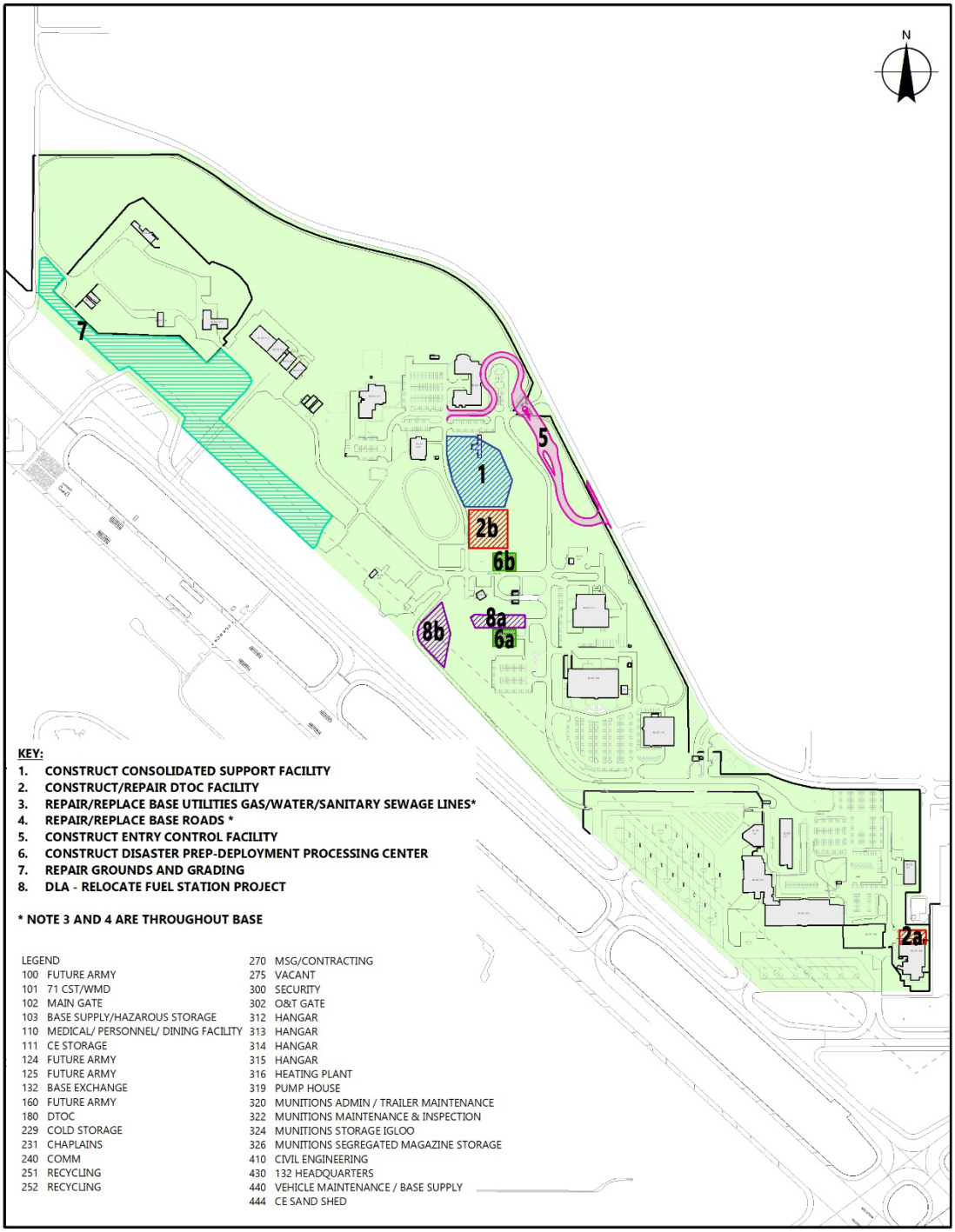
Sources: ANG 2021; NGB 2018; Osteraas 2021, email communication.

2.1.1.1 Construction

Six projects involve new construction. The construction projects would add approximately 54,170 SF from either constructing new buildings or building additions and would add about 1,000 SY of impervious surface from new parking. The construction would be on previously disturbed land. The 132 WG notes that, as discussed in Sections 1.0 and 1.1, long-range facility improvement projects such as Projects 1, 2, 4, 5, and 6 will undergo future NEPA analyses, tiering to this EA, when specific project planning details are available. Proposed new construction projects include the following (Table 2-1 provides project details):

- ***Project 1. Construct Consolidated Support Facility (FFAN189110).*** This project would construct a 27,250 SF facility to accommodate administrative and training functions. The 132 WG notes that this project is in the early stages of development and implementation would be more than 5 years out.
- ***Project 2. Addition or Alteration (ADAL) of DTOC (FFAN202180, companion project FFAN189180).*** This project would include construction of a 12,320 SF AT/FP-compliant addition to B180 to accommodate on-site storage of DTOC mission equipment and operations. The 132 WG notes that this project is in the early stages of development and implementation would be more than 5 years out.
- ***Project 4. Repair/Replace Base Roads (FFAN982044).*** This project includes the construction of 1,000 SY of impervious surface (parking) compliant with AT/FP standoff requirements from the airfield. The 132 WG notes that this project is in the early stages of development and implementation would be more than 5 years out.
- ***Project 5. Construct a New Entry Control Facility (ECF) (FFAN189062).*** This project includes construction of a new gate compliant with AT/FP setback standards and UFC

Figure 2-1: Proposed Project Locations
Air National Guard 132 WG, Des Moines, Polk County, IA



vehicle inspection area requirements at McKinley Avenue and Shooting Star Road. The 132 WG notes that this project is in the early stages of development and implementation would be more than 5 years out.

- ***Project 6. Construct a New Disaster Preparation/ Deployment Processing Center/ Gymnasium (FFAN209276).*** The project would be constructing a new 14,600 SF multiuse facility for dedicated disaster preparation, deployment processing, and base gymnasium activities. The 132 WG notes that this project is in the early stages of development and implementation would be more than 5 years out.
- ***Project 8. Relocate/Construct a Fuel Station (FFAN012051, FFAN199280, FFAN162280) (DLA Projects).*** The project would construct a new fuel station providing one 5,000-gallon unleaded fuel AST, one 5,000-gallon diesel AST, and all required supporting infrastructure (e.g., paving, utilities, spill containment, and overhang/cover).

2.1.1.2 Demolition

Three proposed projects involve demolition, which would remove about 32,363 SF of facilities and about 1,100 SY of impervious surface (Table 2-1 provides project details):

- ***Project 1. Demolish B110 and B231 (FFAN189110).*** Existing B110 (26,932 SF) and B231 (3,057 SF) are located within the proposed footprint of the new Project 1 and Project 5 facilities and would require demolition. The 132 WG notes that this project is in the early stages of development and implementation would be more than 5 years out.
- ***Project 4. Repair/Replace Base Roads (FFAN982044).*** This project includes the demolition of 1,100 SY of existing impervious surface. The current parking does not meet AT/FP standoff requirements from the airfield. The 132 WG notes that this project is in the early stages of development and implementation would be more than 5 years out.
- ***Project 6. Demolish B276 and B302 (FFAN209276).*** Existing B276 (2,317 SF) and B302 (57 SF) are located within the proposed footprint of the new Project 6 facilities and would require demolition. The 132 WG notes that this project is in the early stages of development and implementation would be more than 5 years out.

2.1.1.3 Renovation

Four projects involve renovation. Renovations would be alterations and repairs at the DTOC, including road repair/replacement, about 19,000 SF of drainage repair, and interior building renovations. Proposed renovation projects include the following (Table 2-1 provides project details):

- ***Project 2. ADAL of DTOC (FFAN202180, companion project FFAN189180).*** This project would be renovating B180 to reconfigure the interior spaces to house on-site storage of DTOC mission equipment and operations. The 132 WG notes that this project is in the early stages of development and implementation would be more than 5 years out.

- ***Project 3. Repair/Replace Base-Wide Utilities (FFAN082191 and FFAN982047).*** This project includes renovating/installing upgraded water and natural gas infrastructure to correct structural deficiencies and modernize systems. The 132 WG notes that this project is in the early stages of development and implementation would be more than 5 years out.
- ***Project 4. Repair/Replace Base Roads (FFAN982044).*** This project includes base-wide paving repairs capable of supporting DTOC heavy equipment; and the regrading and installation of stormwater management measures to address surface runoff flooding issues. The 132 WG notes that this project is in the early stages of development and implementation would be more than 5 years out.
- ***Project 7. Repair Grounds and Grading (FFAN212001).*** This project would be regrading and repair of approximately 19,000 SF of drainage area adjacent to the flight line, including piping of approximately 1,504 linear feet of a jurisdictional WOTUS, to correct ongoing washout, wildlife attractant, and maintenance issues.

2.1.2 Alternative 1

Alternative 1 includes implementing all projects listed under the Proposed Action without an identified alternative plus implementing any identified alternative projects. An alternative has been identified for Project 2. ADAL of DTOC (FFAN202180, companion project FFAN189180). Project 6: Construct a New Disaster Preparation/Deployment Processing Center/Gymnasium (FFAN209276) and Project 8: Relocate/Construct a Fuel Station (FFAN012051, FFAN199280, FFAN162280) have identified alternative locations to site the proposed facilities on Des Moines ANGB, all other project details are identical to the Proposed Action.

The proposed alternative for Project 2 would be to construct a new 29,916 SF DTOC facility within the Des Moines ANGB footprint. As noted earlier, this project is in the early stages of development; design drawings have not been drafted, and implementation would be more than 5 years away. Therefore, this project is not carried forward for detailed analysis in this EA. As discussed in Sections 1.0 and 1.1, long-term facility improvement projects such as this will undergo future NEPA analyses, tiering to this EA, when specific project planning details become available.

2.1.3 No Action Alternative

The CEQ regulation in 40 CFR § 1502.14(c) requires analysis of the No Action Alternative in all NEPA documents. Under the No Action Alternative, the 132 WG would not implement the Proposed Action. It would not implement the facility improvement construction and renovation projects to meet mission or AT/FP requirements. Demolition of outdated, inefficient facilities also would not occur. Although the No Action Alternative does not meet the installation's needs or fulfill the purpose of and need for the Proposed Action, it was carried forward for detailed analysis in the EA as required under NEPA.

	Project 1. Construct Consolidated Support Facility (FFAN189110): View looking north across the proposed project open space toward B231 and B110. (Photo credit: H. Conn, Tetra Tech, 7/9/2020.)
	Project 2. Addition/ Alteration of DTOC (FFAN202180): View of B180. Proposed project is a 12,320 SF addition/alteration of B180 to increase the square footage from 20,916 SF to 33,236 SF and interior renovations. (Photo credit: H. Conn, Tetra Tech, 7/9/2020.)

	Project 2, Alternative. Construct a new 29,916 SF DTOC facility properly sized and configured. View looking northeast across the proposed project open space toward the proposed new entry control facility (Project 5) (Photo credit: H. Conn, Tetra Tech, 7/9/2020.)
Projects 3 and 4 are base wide utility and road improvements. (Not Pictured)	
	Project 5. Construct a New Entry Control Facility (FFAN189062): View of Shooting Star Rd entry, B110, and B231. Proposed project is construction of a new main ECF at Shooting Star Road that meets AT/FP and inspection requirements. (Photo credit: H. Conn, Tetra Tech, 7/9/2020.)

	Project 6. Construct a New Disaster Preparation/ Deployment Processing Center/ Gymnasium (FFAN209276): View of B276. Proposed project is to demolish B276 and B302 and construct a 14,600 SF combined facility. (Photo credit: H. Conn, Tetra Tech, 7/9/2020.)
	Project 6, Alternative: View of alternate location for proposed construction of a new 14,600 SF combined facility for dedicated disaster preparation, deployment processing, and base gymnasium. (Photo credit: H. Conn, Tetra Tech, 7/9/2020.)

	Project 7. Repair Grounds and Grading (FFAN212001): View northwest from airport road. Proposed project is regrading approximately 19,000 SF, including piping approximately 1,504 linear feet of a jurisdictional WOTUS, to correct drainage and washout issues. (Photo credit: H. Conn, Tetra Tech, 7/9/2020.)
	Project 7. Repair Grounds and Grading (FFAN212001): View west. Proposed project is regrading to correct drainage washout issues adjacent to the flight line. (Photo credit: H. Conn, Tetra Tech, 7/9/2020.)

	Project 8. Relocate/Construct a Fuel Station (FFAN012051, FFAN199280, FFAN162280): View east, across proposed project open space. Proposed project is installation of a fuel station; two 5,000 gallon ASTs and supporting infrastructure. (Photo credit: H. Conn, Tetra Tech, 7/9/2020.)
	Project 8, Alternative. Relocate/Construct a Fuel Station (FFAN012051, FFAN199280, FFAN162280): View southwest, across alternate site for proposed project fuel station. (Photo credit: H. Conn, Tetra Tech, 7/9/2020.)

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

In compliance with NEPA, the CEQ, and Air Force NEPA-implementing regulations, this section describes relevant and existing environmental conditions for resource areas that potentially would be affected by the Proposed Action. It also discusses the environmental consequences of implementing the Proposed Action, Alternative 1, and No Action Alternative. In general, the discussion of the affected environment and assessment of environmental consequences focuses on Des Moines ANGB and Polk County, IA.

The resources carried forward for detailed analysis are health and safety, air quality, noise, water resources (including wetlands and floodplains), biological resources, transportation, cultural resources, hazardous materials and wastes, and utilities.

3.1 HEALTH AND SAFETY

3.1.1 Definition of Resource

Safety and accident hazards can often be identified and reduced or eliminated before anyone or anything is affected by them. Construction site safety involves complying with regulatory requirements intended to reduce the risk of illness, injury, death, and property damage. Ground safety concerns are associated with human activities, operations, and maintenance activities that support mission operations, including AT/FP considerations and explosive safety quantity distance (ESQD) arcs. Air Force Manual 91-201, *Explosives Safety Standards*, defines required distances between sites where explosives are stored or handled and other types of facilities.

AFI 91-301, *Air Force Occupational and Environmental Safety, Fire Protection, and Health Program*, implements Air Force Policy Directive (AFPD) 91-3, *Occupational Safety and Health*, by outlining the Air Force Occupational Safety and Health program, the purpose of which is to protect personnel from occupational death, injury, or illness and to minimize the loss of resources by managing risks. In conjunction with the Air Force Mishap Prevention Program, these standards ensure all Air Force workplaces meet federal safety and health requirements.

A Bird/Wildlife Aircraft Strike Hazard (BASH) Plan (as outlined in AFI 91-212, *Bird/Wildlife Aircraft Strike Hazard Management Program*) is implemented at military airfields to minimize bird and other wildlife strikes to aircraft. Strike incidents can result in casualty of personnel and critical damage to aircraft and ground resources.

3.1.2 Existing Conditions

The safety elements at Des Moines ANGB include training and procedures, safety zones, monitoring, signage, exclusion, and enforcement and apply to all aspects of operations. The base is secured by a chain-link fence with a total of three entry points. The primary ECF, or main gate, is located near the south portion of the installation along McKinley Avenue and serves both the ANG and the ARNG facilities. The supply and commercial entrance, located further north, is an

unmanned access point. A third gate is located at the northwest fence line and is primarily used for airport access and deliveries to the munitions area. The 132 Security Forces Squadron (SFS) is responsible for base security. The 132 SFS has identified that the three entry points, other facilities (including B110 and B410), and parking areas do not meet AT/FP requirements per UFC 4-010-01 (NGB 2018).

The 132 WG has implemented a BASH Plan applicable specifically to the grounds inside the ANGB fence and intended to support the BASH Plan of Des Moines International Airport (BASH 2019). The two plans successfully coordinate the safety of personnel and property.

Ordnance stored and handled at the installation must meet the ESQD arcs currently in place on the ANGB. There is one munitions storage area located at the northwest portion of the installation. It is fenced with controlled gates for security. The current safety zones exceed the requirements of the 132 WG munitions stored at the installation.

Units operating under the 132 WG face challenges in complying with updated laws, policies, and protocols related to AT/FP and Occupational Safety and Health Administration (OSHA) safety aspects. Some buildings (including B110, B180, and B231) and parking areas are located within the standoff setback. Additionally, B110 and B231 do not have fire suppression systems, a critical safety hazard (NGB 2018).

There are no airfield waivers associated with the RPA flying mission of 132 WG or the RC-26 aircraft assigned to the unit. No projects are proposed that would affect waivers currently maintained by Des Moines International Airport.

3.1.3 Environmental Consequences

3.1.3.1 Significance Criteria

Health and safety effects would be considered significant if the action would substantially increase risks to Air Force personnel or the general public associated with air or flight, construction site, or ground safety during construction or operations and maintenance activities, either on or off the base.

3.1.3.2 Proposed Action

Summary. The Proposed Action would result in short-term less-than-significant effects on construction site safety and long-term beneficial effects on ground safety. Short-term effects would be from inherent safety hazards associated with construction, demolition, and renovation activities. Long-term effects would be from implementing projects to meet AT/FP, flight line, and personnel safety requirements.

Construction. The construction, demolition, and renovation activities associated with the projects identified in the Proposed Action would introduce temporary safety hazards and risks. These safety issues would be mitigated through the implementation of standard safe work practices compliant with OSHA and Air Force programs. During the process of constructing a new ECF,

repairing all base roads and drainage, and constructing new parking areas while demolishing old areas, there would be temporary traffic delays and detours that would challenge AT/FP protocols, but would be minimized by a phased approach or use of internal routing. A drainage area regrading and repair project adjacent to the flight line is designed to correct a washout, resulting in ongoing maintenance and BASH issues.

Operations. The results of the Proposed Action projects include improved safety and compliance with AT/FP as well as improved mission readiness. The construction of a new disaster preparation/deployment processing center and gymnasium would provide the 132 WG a new AT/FP-compliant space and appropriate configuration to carry out its mission. The proposed construction, demolition, and renovation projects of the preferred action: new consolidated support facility, adding to B180, relocation of the fuel station, repair/replace base-wide utilities, and repair base roads would result in improved operational capabilities as well.

There would be no effects on air or flight safety. The projects proposed do not include work on the airfield or other areas which would directly affect safety protocols in place for airspace use and airfield operations.

3.1.3.3 Alternative 1

Effects on health and safety from Projects 1 and 3–8 would be the same as those under the Proposed Action. The identified alternative for Project 2 is a long-range construction project and will undergo future specific NEPA analyses, tiering to this EA, when specific project planning details are available.

3.1.3.4 No Action Alternative

Existing conditions would remain unchanged under the No Action Alternative. The 132 WG would continue to operate out of compliance with AT/FP protocols and personnel safety for the foreseeable future at entry control facilities, where standoff setbacks cannot be achieved, and in buildings that lack fire suppression systems.

3.2 AIR QUALITY

3.2.1 Definition of Resource

Air pollution is the presence in the outdoor atmosphere of one or more contaminants (e.g., dust, fumes, gas, mist, odor, smoke, or vapor) in quantities and of characteristics and duration that are injurious to human, plant, or animal life. Air quality as a resource incorporates components that describe air pollution within a region, sources of air emissions, and regulations governing those emissions. This section discusses the existing conditions, a regulatory overview, and a summary of greenhouse gases (GHGs) and global warming.

3.2.2 Existing Conditions

EPA Region 7 and the Iowa Department of Natural Resources (IDNR) regulate air quality in Iowa. The CAA assigns EPA responsibility for establishing the primary and secondary NAAQS (40 CFR Part 50) that specify acceptable concentration levels of six criteria pollutants: PM (measured as both PM less than 10 microns in diameter [PM10] and PM less than 2.5 microns in diameter [PM2.5]), SO_2, CO, NO_2, O_3, and Pb. Primary NAAQS provide public health protection, including protecting the health of sensitive populations such as asthmatics, children, and the elderly. Secondary NAAQS provide public welfare protection, including protection against decreased visibility, harm to animals, and damage to buildings, crops, and vegetation. Short-term NAAQS (1-, 8-, and 24-hour periods) have been established for pollutants contributing to acute health effects, while long-term NAAQS (annual averages) have been established for pollutants contributing to chronic health effects. Table 3-1 outlines the NAAQS for each criteria pollutant. While each state has the authority to adopt standards stricter than those established under the federal program, the state of Iowa has accepted the federal standards.

Local Air Quality. Federal regulations designate air quality control regions (AQCRs) in violation of the NAAQS as nonattainment areas. Federal regulations designate AQCRs with levels below the NAAQS as attainment areas. Polk County (and therefore all areas associated with the action) is within the South Central Iowa Intrastate Air Quality Control Region (AQCR 260) (40 CFR Part 81). EPA has designated Polk County, and, therefore, all areas associated with the Proposed Action, as an attainment area for all criteria pollutants (USEPA 2021b). The Proposed Action is within a region that EPA has designated as an attainment area; therefore, the General Conformity Rule does not apply (EPA 2021b).

Permitting Overview. Des Moines ANGB is a "minor source" of air emissions, meaning it has emissions below the major source threshold outlined in the air permitting regulations and is not required to hold a Title V operating permit. Des Moines ANGB renewed their air permit (Permit No. 02136) on January 5, 2022. Table 3-2 lists the base-wide emissions from all stationary and mobile sources (NGB 2019).

New stationary sources of air emissions, such as boilers or backup generators, would require permits to construct. There are two types of construction permits available for new emissions sources in attainment and maintenance areas, including (1) prevention of significant deterioration (PSD) permits for major sources in attainment areas and (2) minor new source construction permits.

The PSD program protects air quality by imposing limits on emissions from major sources in attainment areas. The PSD process applies to all proposed new major sources of air pollutants in attainment areas, and typically takes 18 to 24 months to complete. In general, the PSD major source thresholds are 25 tons per year (tpy) for Pb, and 250 tpy for all other criteria pollutants; however, it is lower for some special categories, such as 100 tpy for industrial heating boilers.

Table 3-1. National Ambient Air Quality Standards

Pollutant		Primary/ Secondary	Averaging time	Level	Form
CO		Primary	8-hour	9 ppm	Not to be exceeded more than once per year
			1-hour	35 ppm	
Pb		Primary and Secondary	Rolling 3-month average	0.15 µg/m3	Not to be exceeded
NO_2		Primary	1-hour	100 ppb	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years
		Primary and Secondary	Annual	53 ppb	Annual mean
O_3		Primary and Secondary	8-hour	0.070 ppm	Annual fourth highest daily maximum 8-hour concentration, averaged over 3 years
PM	$PM_{2.5}$	Primary	Annual	12 µg/m3	Annual mean, averaged over 3 years
		Secondary	Annual	15 µg/m3	Annual mean, averaged over 3 years
		Primary and Secondary	24-hour	35 µg/m3	98th percentile, averaged over 3 years
	PM_{10}	Primary and Secondary	24-hour	150 µg/m3	Not to be exceeded more than once per year on average over 3 years
SO_2		Primary	1-hour	75 ppb	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

Sources: 40 CFR §§ 50.1-50.12; USEPA 2021a.
Notes: µg/m3 = micrograms per cubic meter; ppb = parts per billion; ppm = parts per million.

Table 3-2. Calendar Year 2018 Annual Emissions for Des Moines ANGB

Pollutant	Stationary source emissions (tpy)	Mobile source emissions (tpy)
Carbon monoxide (CO)	0.7	1.0
Fine particulate matter (PM_{10})	0.1	< 0.1
Nitrogen oxides (NO_x)	0.9	0.2
Sulfur oxides (SO_x)	< 0.1	< 0.1
Volatile organic compounds (VOCs)	0.1	0.1

Source: NGB 2019.
Note: tpy = tons per year.

Major new sources of air emissions subject to PSD typically require a review of control technologies for criteria pollutants, predictive dispersion modeling of air emissions, and a separate public involvement process.

A minor new source construction permit would be required to construct any new sources of air emissions not subject to PSD, and typically takes 4 to 5 months to complete. Sources subject to minor new source construction permitting could be required to review control technologies for criteria pollutants and, upon request from the state, conduct predictive dispersion modeling of air emissions.

Climate and Greenhouse Gases. Des Moines's average high temperature is 86.0 degrees Fahrenheit (°F) in the hottest month of July and average low temperature is 11.7 °F in the coldest month of January. Des Moines has average annual precipitation of 34.7 inches per year. The wettest month of the year is June, with an average precipitation of 4.6 inches (IDcide 2021).

GHGs are components of the atmosphere that trap heat relatively near the surface of the earth and contribute to the greenhouse effect and climate change. Most GHGs occur naturally in the atmosphere, but increases in their concentration result from human activities such as the burning of fossil fuels. Global temperatures are expected to rise as human activities continue to add carbon dioxide, methane, nitrous oxide, and other greenhouse (or heat-trapping) gases to the atmosphere. Whether or not rainfall would increase or decrease remains difficult to project for specific regions (IPCC 2018).

EO 14008, *Tackling the Climate Crisis at Home and Abroad* (2021), outlines policies to reduce GHG emissions and to bolster resilience to the impacts of climate change. The EO directs CEQ to review, revise, and update its 2016 final guidance titled *Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews*. When considering GHG emissions and their significance, agencies should use appropriate tools and methodologies for quantifying GHG emissions and comparing GHG quantities across alternative scenarios. The CEQ guidance specifically requires agencies within the DoD to quantify GHG emissions in NEPA assessments and review federal actions in the context of future climate scenarios and resiliency.

3.2.3 Environmental Consequences

3.2.3.1 Significance Criteria

Effects on air quality would be considered significant if (1) the net emissions from the Proposed Action would exceed the PSD major source thresholds, or (2) the Proposed Action would contribute to a violation of any local, state, or federal air quality regulation.

3.2.3.2 Proposed Action

Summary. The Proposed Action would have short- and long-term less-than-significant effects on air quality at Des Moines ANGB. Short-term effects would result from construction, demolition, and renovation activities. Long-term effects would result from increases in heating and cooling requirements at the installation. Emissions would not exceed the PSD major source thresholds, and the Proposed Action would not contribute to a violation of any local, state, or federal air quality regulation.

The Proposed Action consists of construction—including new construction, renovations, alterations, and additions, demolition of buildings and pavement, and administrative projects (see Table 2-1). There would be some minor adverse effects on air quality from individual projects and project alternatives; however, each was reviewed on a case-by-case basis and none individually

would have appreciable adverse effects on air quality. A description of effects on air quality from the full implementation of the IDP, including all projects and project alternatives outlined in Table 2-1, is provided in the following discussions of construction, operations, and GHGs. This is considered the reasonable upper bound of effects, and impacts would be less than those described in this section.

The Proposed Action is within a region that EPA has designated as an attainment area; therefore, the General Conformity Rule does not apply (USEPA 2021b). The PSD major source thresholds were carried forward as an indicator of potential significance in an attainment area and to determine the level of effects under NEPA.

Construction. The Air Force's Air Conformity Applicability Model was used to estimate the total direct and indirect emissions from the Proposed Action. Construction, demolition, and renovation emissions were estimated for architectural coatings, building construction, fugitive dust, on- and off-road diesel equipment and vehicles, site clearing and grading, trenching, VOCs from paving, and worker trips (Table 3-3). Emissions from the Proposed Action would not exceed the PSD major source thresholds and will not cause or contribute to any new violation of any standard in any area, will not increase the frequency or severity of any existing violation of any standard in any area, nor will it delay the timely attainment of any standard or any interim emission reduction or other milestone in any area. Detailed emission calculations have been included in Appendix C.

For purposes of analysis, it was assumed that all construction, demolition, and renovation activities would be compressed into one 12-month period. Therefore, regardless of the ultimate implementation schedule, annual emissions would be less than those specified herein. Small changes in facility siting and design and moderate changes in quantity and types of equipment used would not substantially change these emission estimate's level of effects under NEPA.

The Iowa Administrative Code (IAC) outlines requirements with which NGB must comply when constructing new facilities, such as controlling fugitive dust and open burning. All persons responsible for any operation, process, handling, transportation, or storage facility that could

Table 3-3. Estimated Air Emissions Compared to Significance Indicators

Pollutant	Construction emissions (tpy)	Operational emissions (tpy)	PSD major source threshold (tpy)	Exceeds thresholds? [Yes/No]
VOC	1.4	0.2	250	No
NO_x	4.0	0.3		
CO	5.2	<0.1		
SOx	0.0	<0.1		
PM_{10}	5.7	<0.1		
$PM_{2.5}$	0.2	<0.1		
CO_2e	1,097	200	N/A	N/A

Source: USAF 2021.
Notes: CO_2e = carbon dioxide equivalent; N/A = not applicable.

result in fugitive dust would take reasonable precautions to prevent the dust from becoming airborne. Reasonable precautions might include using water to control dust from building construction, road grading, or land clearing. In addition, the Proposed Action would proceed in full compliance with current state air quality regulations using compliant practices and/or products. IAC requirements include the following:

- Open burning (IAC 567-23.2)
- Fugitive dust (IAC 567-23.3(2)c)
- Particulate matter (IAC 567-23.3(2))

This listing is not all-inclusive; NGB and any contractors would comply with all applicable air pollution control regulations.

Operations. In general, there would be more facilities constructed than demolished and the newly constructed facilities would have new heating equipment. There would be a net increase in heated space and stationary sources of air emissions from implementing the Proposed Action. Increases in operational emissions were estimated for heating and cooling of facilities and the potential addition of backup generators (see Table 3-3). The estimated emissions of all criteria pollutants from the proposed operational activities would be below the PSD major source thresholds; therefore, the level of effects would be less than significant. Appendix C includes detailed emission calculations. No appreciable change would be made in the number of personnel or the overall mission at the base. There would be no changes in aircraft training or operations and no changes in vehicle emissions from commuting.

The Proposed Action includes no new major stationary sources of air emissions, but it might include some small stationary sources such as standby generators or boilers. No paint booths or tank farms are planned. Any new stationary sources of air emissions could be subject to federal and state air permitting regulations, would be reviewed on a case-by-case basis, and would be added to the installation's air operating permit, as necessary. Both a new source construction permit and a modification to the existing operating permit could be required. All older boilers and backup generators removed during reconfiguration or demolition of existing buildings, specifically B110, B231, B276, and B302, would be decommissioned and removed from the base's air operating permit.

Greenhouse Gases and Climate Change. This EA examines GHGs as a category of air emissions. It also looks at issues of temperature and precipitation trends to determine whether climate change would have any effects on the affected environment or the proposed facilities. This EA does not attempt to measure the actual incremental effects of GHG emissions from the Proposed Action, as there is a lack of consensus on how to measure those effects. Existing climate models have substantial variation in output, and they do not have the ability to measure the actual incremental effects of a project on the environment. Table 3-4 compares the estimated reduction in GHG emissions, reported in CO_2 equivalents (CO_2e) from the Proposed Action to

global, nationwide, and statewide GHG emissions. CO_2e is the estimated amount of CO_2, with the same global warming potential as all GHG emitted combined (e.g., methane, and nitrous oxide). The estimated decrease would be minute.

Table 3-4. Global, Countrywide, and Statewide GHG Emissions

Scale	$C0_2e$ emissions (MMT/year)	Change from the Proposed Action
Global	43,125	0.000002%
United States	5,249	0.00002%
Iowa	75.8	0.001%
Proposed Action	0.001	-

Sources: USAF 2021, USEIA 2016.
Note: MMT = million metric tons.

Iowa is in the Midwest climate region of the United States, where climate change is expected to contribute to increased temperature, flooding, and late-spring freezes. The seasonal climate, natural systems, and accessibility of certain types of recreation are threatened by declining amounts of snow and ice and rising temperatures. The Midwest has gotten warmer, with average annual temperatures increasing over the last several decades. Between 1900 and 2010, the average air temperature increased by more than 1.5 °F. The rate of increase in temperatures, particularly nighttime and winter temperatures, has accelerated in recent decades. Highly productive agricultural and forestry activities are sensitive to changing environmental conditions, including shifts in temperature, precipitation, flooding, and erosion. Many of these changes are already affecting Iowa's ecosystems, posing increasing risks to people, traditions, infrastructure, and economies (NCA 2018).

Table 3-5 outlines potential climate stressors and their effects on the proposed facilities. The Proposed Action in and of itself is only indirectly dependent on any of the elements associated with future climate scenarios (e.g., meteorological changes). At this time, no future climate scenario or potential climate stressor would have appreciable effects on any element of the proposed development. This review is consistent with the requirements outlined in EO 14008.

Table 3-5. Effects of Potential Climate Stressors

Potential climate stressor	Effects on the Proposed Action
Changes in precipitation patterns	Negligible
Decline in snow and ice	Negligible
Harm to water resources, agriculture, wildlife, ecosystems	Negligible
Temperature rise	Negligible

Source: NCA 2018.

3.2.3.3 Alternative 1

Effects on air quality from Projects 1 and 3-8 would be the same as those under the Proposed Action. The identified alternative for Project 2 is a long-range construction project and would undergo future specific NEPA analyses, tiering to this EA, when specific project planning details are available.

3.2.3.4 No Action Alternative

No effects on air quality would be expected under the No Action Alternative. The construction, demolition, and renovation projects would not occur. Existing conditions would remain unchanged, and there would be no effects on air quality.

3.3 NOISE

3.3.1 Definition of Resource

Noise is defined as any sound that is undesirable because it interferes with communication, is intense enough to damage hearing, or is otherwise intrusive. Human response to noise varies depending on the type and characteristics of the noise, the distance between the noise source and the receptor, receptor sensitivity, and the time of day. Noise often is generated by activities essential to a community's quality of life, such as construction and operation of motor vehicles.

Sound varies by both intensity and frequency. Sound pressure level, described in decibels (dB), is used to quantify sound intensity. The dB is a logarithmic unit that expresses the ratio of a sound's pressure level to a standard reference level. The hertz is the unit used to quantify sound frequency. The human ear responds differently to different frequencies. "A-weighting," measured in A-weighted decibels (dBA), approximates a frequency response expressing the perception of sound by humans. Table 3-6 lists sounds encountered in daily life and their dBA levels.

Table 3-6. Common Sounds and Their Levels

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

Source: Harris 1998.

3.3.2 Existing Conditions

Background noise levels without aircraft were estimated for the areas surrounding Des Moines International Airport and Des Moines ANGB using the techniques specified in the American National Standard Institute/ Acoustical Society of America (ANSI/ASA) S12.9-2013/Part 3, *Quantities and Procedures for Description and Measurement of Environmental Sound—Part 3: Short-Term Measurements with an Observer Present*. Table 3-7 outlines the land use categories, off-base noise-sensitive areas and their distance to the proposed projects, and the estimated background noise levels in areas surrounding the airport (ANSI 2013). These estimates provide an indication of a range of sound levels in a specific area; land use categories with estimated sound levels above 50 dBA have an uncertainty of approximately 10 dBA (ANSI 2013).

Table 3-7. Estimated Background Noise Levels

Land use category	Nearest off-base noise sensitive area		Average sound level (dBA)	
	Direction	Distance (ft)	Daytime	Nighttime
Quiet suburban residential	North	1,800	45	39
	East	200		
Rural residential	South	7,800	40	34
	West	3,100		

Source: ANSI 2013.
Note: ft = feet.

Areas in the immediate vicinity of Des Moines ANGB, particularly individual residents along McKinley Avenue, are exposed to appreciable amounts of aircraft noise from Des Moines International Airport. Noise levels and operational frequency of aircraft from the airport in these areas are loud, common, and currently generate levels normally not recommended for residential use (FAA 2007).

3.3.3 Environmental Consequences

3.3.3.1 Significance Criteria

Effects on the noise environment would be considered significant if the Proposed Action would appreciably increase the amount of incompatible land use surrounding the base or lead to a violation of any applicable federal, state, or local noise regulations.

3.3.3.2 Proposed Action

Summary. The Proposed Action would have short- and long-term less-than-significant effects on the noise environment. Short-term effects would be the result of the use of heavy equipment during demolition and construction activities. Long-term effects would be caused by the potential use of backup generators at the proposed facilities and the relocation of the ECF along McKinley Avenue. The Proposed Action would not appreciably increase the amount of incompatible land use surrounding the base or lead to a violation of any applicable local, state, or federal noise regulations.

Construction. Individual pieces of construction and demolition equipment typically generate noise levels of 80–90 dBA at a distance of 50 feet (ft) (FHWA 2006; USEPA 1971). With multiple items of equipment operating concurrently, noise levels can be relatively high during daytime periods at locations within several hundred feet of active sites. All noise-sensitive areas within 800 ft of construction and demolition activities would experience some additional noise. These areas would include on-base ANG facilities, areas where personnel would be present, and residences along McKinley Avenue. Construction and demolition activities, however, would be primarily confined to on-base areas and conducted primarily during daytime hours. Because of the temporary nature of the projects and the distance to nearby off-base areas, the effects would be minor. Although construction- and demolition-related noise effects would be minor, the following BMPs would be performed to reduce the already-limited noise effects:

- Construction and demolition would primarily occur during daytime hours.
- Equipment mufflers would be properly maintained and in good working order.
- On-site personnel—particularly equipment operators—would wear adequate personal hearing protection to limit exposure and ensure compliance with federal health and safety regulations.

Operations. There would be no change in the number or types of aircraft or training activity at the installation; therefore, no changes in the existing noise environment associated with these sources would be expected. Backup generators at the proposed facilities would produce noise during periodic testing and use during power outages. There would be limited changes in traffic patterns, particularly along the three-tenths-of-a-mile stretch of McKinley Avenue where the new main ECF would be located. Residents along the roadway in that area would experience a minor change in traffic noise during peak periods; however, an increase in the amount of northbound traffic that would be approaching the new ECF and associated noise would be somewhat offset by a reduction in the amount of southbound traffic that previously approached the old ECF. These changes would be in the context of an area in which the primary source of noise is from aircraft activities (FAA 2007). These effects would be minor.

3.3.3.3 Alternative 1

Effects on noise from Projects 1 and 3-8 would be the same as those under the Proposed Action. The identified alternative for Project 2 is a long-range construction project and would undergo future specific NEPA analyses, tiering to this EA, when specific project planning details are available.

3.3.3.4 No Action Alternative

No effects on noise would be expected under the No Action Alternative, the construction, demolition, and renovation projects would not occur. Existing conditions would remain unchanged, and there would be no effects on the noise environment.

3.4 WATER RESOURCES

3.4.1 Definition of Resource

Water resources include groundwater, stormwater, surface water, wetlands, and floodplains.

Groundwater. Groundwater is water that exists in the saturated zone beneath the Earth's surface and includes underground streams and aquifers.

Stormwater. Stormwater is rain and snowmelt that runs off surfaces such as rooftops, paved streets, parking lots, and other impervious surfaces.

Surface Water. Surface water generally consists of lakes, rivers, and streams.

Wetlands. Wetlands are identified 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.

Floodplains. Floodplains are areas of low-level ground present along rivers, stream channels, or coastal waters that are subject to periodic or infrequent inundation from rain or melting snow.

3.4.2 Existing Conditions

Groundwater. North of the installation, a deep bedrock channel (with elevations between 750 ft and 800 ft above mean sea level) lies beneath the floodplain of the Raccoon River. This channel is filled with coarse, permeable alluvium deposited by meltwaters as the last (Wisconsinan) glaciers withdrew from the area. The coarse alluvium filling the bedrock channel is currently a major source of potable water for Des Moines and the vicinity (Air National Guard 2001).

A generalized geologic section for the installation indicates that there are four major aquifers beneath the installation: one in the surficial materials less than 20 ft deep (Quarternary alluvium) and three in the deeper, sedimentary bedrock units more than 350 ft deep (Mississippian, Devonian, and Cambrian) (Jordan Group). The water in the bedrock aquifers is generally highly mineralized and/or at great depth; only the Quarternary alluvial aquifer is a major source of potable water. Although groundwater near the installation is used for public water supply, no water supply wells are physically located on the installation (132 FW 2001).

Stormwater. Surface water runoff on Des Moines ANGB is collected in stormwater management basins. Two excavated stormwater management basins and two excavated stormwater drainage features exist within the installation boundary (Figure 3-2) (Headquarters ANGB 2021). During times of heavy rain, very low-lying areas become flooded temporarily. In particular, strong rain showers create flooding at the lower road base that penetrates B160. Stormwater drainage is insufficient to relieve flooding created by the slope of the current grade. Stormwater runoff on-base is directed into the storm sewer system serving the base, which runs southwest and discharges into tributaries of Frink Creek (located approximately 1 mile west of the installation). The creek then travels north for approximately 1.5 miles, where it empties into the Raccoon River (132 FW 2001; National Guard Bureau 2012).

Surface Water and Wetlands. According to topographic maps and aerial photographs, no permanent bodies of water are located on the installation. In 2019 scientists conducted a wetland delineation of the 132 WG footprint on the ANGB. The delineation identified a 0.13-acre palustrine emergent wetland (Wetland 1) near the south-central edge of the installation and an 0.83-acre, 1,504 linear foot riprap-lined intermittent stream feature (Stream 1) in the northwestern portion along the installation boundary (Figure 3-2). An Approved Jurisdictional Determination (AJD) was issued by USACE Rock Island District on March 31, 2021, that determined Wetland 1 is excluded from CWA jurisdiction and Stream 1 is a WOTUS within CWA jurisdiction (Headquarters ANGB 2021).

USACE regulates the discharge of dredged or fill material into waters and wetlands of the United States pursuant to Section 404 of the CWA. Section 401 of the CWA gives the State of Iowa the authority to regulate federally permitted activities that might result in discharges to water bodies. The IDNR issues Section 401 water quality certification in the state, a process governed by the CWA Section 401 certification regulations EPA promulgated in 1971. On October 21, 2021, the U.S. District Court for the Northern District of California issued an order remanding and vacating EPA's 2020 CWA Section 401 Certification Rule (2020 Rule). The vacatur is nationwide. The order requires a temporary return to EPA's 1971 Rule until EPA finalizes a new certification rule. EO 11990, *Protection of Wetlands*, requires that federal agencies take action to avoid adverse effects associated with the destruction or modification of wetlands, avoid new construction in wetlands when there is a practicable alternative, and preserve and enhance the natural beneficial values of wetlands. In accordance with EO 11990, a Finding of No Practicable Alternative (FONPA) must be prepared and approved by NGB for all projects affecting wetlands. The Federal Coastal Zone Management Act of 1972 (16 U.S.C. §§ 1451-1466) requires that federal agency activities be consistent with the states federally approved Coastal Management Programs. Iowa has no coastal waters and does not participate in the National Coastal Zone Management Program.

Floodplains. Risk of flooding typically depends on local topography, the frequency of precipitation events, and the size of the watershed above the floodplain. Flood potential is evaluated by FEMA, which defines a flood hazard area as the area that will be inundated by the flood event having a 1 percent chance of being equaled or exceeded in any given year. The 1 percent annual chance flood is also referred to as the base flood or 100-year flood. Federal, state, and local regulations often limit floodplain development to passive uses such as recreational and preservation activities to reduce the risks to human health and safety. AFI 32-1021, *Planning and Programming Military Construction Projects*, and EO 11988 provide policy and requirements to avoid construction of new facilities within the 100-year floodplain, where practicable. According to FEMA flood insurance rate maps, none of the installation is within the 100-year floodplain (132 WG 2001).

3.4.3 Environmental Consequences

3.4.3.1 Significance Criteria

Effects on water resources would be considered significant if the proposed activities would reduce water availability or supply, exceed safe annual yield of water supplies, adversely affect water quality, damage or threaten hydrology, or violate water resources laws (CWA Sections 10 and 401), regulations, or permit conditions.

3.4.3.2 Proposed Action

Summary. The Proposed Action would have short- and long-term less-than-significant effects on water resources. Short-term minor adverse effects would be caused by site-specific temporary disturbance during construction, demolition, and renovation. Long-term minor adverse effects

Figure 3-1: Surface Water Features
Air National Guard 132 WG, Des Moines, Polk County, IA

Figure 3-2: Wetlands
Air National Guard 132 WG, Des Moines, Polk County, IA

would be caused by culverting Stream 1. Proposed activities would not reduce water availability or supply; exceed safe annual yield of water supplies; adversely affect water quality; damage or threaten hydrology; or violate water resources laws, regulations, or permits.

Construction. Ground disturbance and the use of construction equipment during construction, demolition, and renovation activities would result in short-term less-than-significant adverse effects on water resources. These effects would be temporary and would end with the construction phase. Construction and demolition will result in ground surface disturbance, which could cause soil erosion and subsequent transport of sediment via stormwater; and construction equipment could potentially leak petroleum, oil, and lubricants (POL), which could also be transported via stormwater. However, potential effects would be minimized through properly implementing environmental protection requirements of a Stormwater Pollution Prevention Plan (SWPPP); following policies and procedures as detailed in a Sediment and Erosion Control Plan and the Spill Prevention, Control, and Countermeasures (SPCC) plan; and coordinating with regulatory agencies for required permits prior to ground-breaking activities. Implementing the SWPPP would protect water quality. Any construction or land-disturbing activity that would create 1 or more acres of soil disturbance would require a stormwater discharge permit from IDNR. In addition, a site-specific SWPPP would be developed for land-disturbing activities. In accordance with EISA Section 438, a variety of stormwater management practices would be incorporated into the proposed development and redevelopment projects to the maximum extent technically feasible to maintain or restore predevelopment site hydrology.

Long-term less-than-significant adverse effects on water resources would result from culverting surface waters and the addition of impervious area on the installation. Project 7 overlaps Stream 1, and it is expected that Stream 1 will need to be culverted over all or part of its length. A Section 404 permit would be required for activities that affect Stream 1. Wetland 1 does not overlap any project sites. The Proposed Action would not impact floodplains. Proposed Projects 1, 2, 4, and 6 would add 63,170 SF of new impervious surface to the installation from new construction activities and Projects 1, 4 and 6 would remove 42,263 SF of impervious surface from demolition activities, resulting in a net addition of 20,907 SF of impervious surface. The additional impervious area would reduce rainwater infiltration and increase the amount of stormwater runoff and has the potential to affect water flows and quality in receiving streams. Stormwater effects would be minimized through the implementation of post-construction stormwater BMPs. Additionally, Project 4 includes installation of stormwater management measures to address current surface runoff flooding issues.

Operations. There would be less-than-significant effects on water resources caused by the operations and maintenance activities associated with the Proposed Action. The nature and overall level of operations at the base would be similar to current conditions. Hazardous materials and wastes would be managed in accordance with the installation SPCC plan, which would minimize potential effects on surface waters.

3.4.3.3 Alternative 1

Effects on water resources from Projects 1 and 3–8 would be the same as those under the Proposed Action. The identified alternative for Project 2 is a long-range construction project and would undergo future specific NEPA analyses, tiering to this EA, when specific project planning details are available.

3.4.3.4 No Action Alternative

No effects on water resources would be expected under the No Action Alternative. The construction, demolition, and renovation projects would not occur. The existing conditions of water resources would remain unchanged, and current flooding issues from deficient stormwater management would not be addressed.

3.5 BIOLOGICAL RESOURCES

3.5.1 Definition of Resource

Biological resources include native and naturalized plants and animals and the habitats in which they occur, which include vegetation; wildlife; and threatened, endangered, and sensitive species in a specific area. Biological resources are integral to ecosystem integrity and their existence and preservation are intrinsically valuable to society for aesthetic, recreational, and socioeconomic purposes. A system of legal requirements and BMPs exists to protect them for those purposes.

3.5.2 Existing Conditions

3.5.2.1 Vegetation

No flora surveys have been conducted on the installation. The 132 WG footprint is approximately 32.7 percent open space, most of which is landscaped vegetation (ANG 2005a). The largest open areas and areas adjacent to runways and taxiways are covered with non-native turfgrass. Ornamental trees and shrubs that have been documented on the installation include green ash (*Fraxinus pennsylvanica*), honey locust (*Gleditsia triacanthos*), Pfitzer's juniper (*Juniperus chinensis pfitzeriana*), pin oak (*Quercus palustris*), Scotch pine (*Pinus sylvestris*), silver maple (*Acer saccharinum*), Washington hawthorne (*Crataegus phaenopyrum*), and white pine (*Pinus strobes*) (IARNG 2017, ANG 2005a). Stands of trees are sparse and located near buildings. Natural resource features that would provide habitat for various species (e.g., forest cover) are not present on Des Moines ANGB (ANG 2021).

3.5.2.2 Wildlife

Formal wildlife surveys on Des Moines ANGB have been limited to a bat survey conducted in 2016 with the entire base as the area of review. Bat acoustic and mist net surveys were conducted in June and August 2016, respectively. The acoustic survey detected four species: big brown bat (*Eptesicus fuscus*), eastern red bat (*Lasiurus borealis*), hoary bat (*Lasiurus cinereus*), and silver-haired bat (*Lasionycteris noctivagans*) (IARNG 2017). No bats were caught in the mist net survey.

Other bat species that potentially could occur on Des Moines ANGB include eastern pipistrelle (*Perimyotis subflavus*), Indiana bat (*Myotis sodalist*), little brown bat (*Mytois lucifugus*), and northern long-eared bat (NLEB) (*Myotis septentrionalis*) (IARNG 2017). All eight of these bat species rely on forests for day roosting during part of the year. Although there are no forested areas that would provide roosting opportunities for federally listed or non-listed bats in tree cavities, loose bark, or snags (dead trees) on-base, four species of bats were detected acoustically (IARNG 2017). Maternity roosts for big brown bats and little brown bats might occupy building structures (e.g., under roofing or siding), although no observations of bats or signs of bats were made during the survey of installation structures (IARNG 2017). The species with the greatest potential to roost on the property are eastern red bats and hoary bats, which might roost in the landscape trees on the installation (IARNG 2017).

Other species that might occur in the vicinity of Des Moines International Airport include crows, ducks, quail, coyotes, foxes, muskrats, raccoon, and white-tailed deer (BASH 2019, ANG 2005a).

3.5.2.3 Threatened, Endangered, and Sensitive Species

Federally Listed Species. There are five federally protected and candidate species with the potential to occur at Des Moines ANGB, as identified by the USFWS Information for Planning and Conservation website: two bat species—the endangered Indiana bat and the threatened NLEB; one insect species—the candidate monarch butterfly (*Danaus plexippus*); and two flowering plant species—the threatened prairie bush-clover (*Lespedeza leptostachya)* and the threatened western prairie fringed orchid (*Platanthera praeclara*) (USFWS 2021a). A survey conducted for expansion at Des Moines International Airport and the surrounding area in 2003 determined that neither the prairie bush-clover and Indiana bat species nor their habitats are present in the area (Des Moines International Airport 2003).

The NLEB is listed as threatened under the ESA anywhere it is found; critical habitat has not been established. White-nose syndrome is the main threat to this species, causing significant losses of the population (USFWS 2021b). Caves and mines serve as winter habitat; in the summer it roosts in colonies or singly under peeling bark or in cavities/snags in trees. Tree species favored by this bat include American elm (*Ulmus americana*), black locust (*Robinia pseudoacacia*), oaks (*Quercus* spp.), red maple (*Acer rubrum*), shagbark hickory (*Carya ovata*), sugar maple (*Acer saccharum*), and white pine (*Pinus strobus*) (USDA 2016). Suitable habitat for day roosting is not available on the installation (IARNG 2017). At dusk, NLEB hunt for insects in the understory of forested areas (USFWS 2021b). The NLEB was not one of the species detected during the 2016 bat survey (IARNG 2017).

To avoid adverse effects on NLEBs, USFWS conservation measures include removing trees outside of the pup season (June 1–July 31) and the active season (April 1–October 31). In addition, the NLEB ESA Section 4(d) rule prohibits incidental take that might occur from tree removal activities within 150 ft of a known occupied maternity roost tree during the pup season or

within one-quarter mile of a hibernation site year-round (USFWS 2016). Consultation with USFWS must be undertaken even when tree or snag removal is planned within the approved timeframes. If tree clearing must occur outside the specified guidelines, USFWS concurrence would be required before conducting the activity. Available habitat on the installation is not suitable for day roosting by NLEB; therefore, these conservation measures are not applicable (IARNG 2017).

The Indiana bat is listed as endangered under the ESA anywhere it is found; its critical habitat does not overlap Des Moines ANGB (USFWS 2021e). This species hibernates in caves during the winter and, in the summer, it roosts under peeling bark or in dead and dying trees. It feeds on flying insects that occur along rivers and lakes (USFWS 2021e). The Indiana bat was not one of the species detected during the 2016 bat survey (IARNG 2017).

The monarch butterfly is a candidate species USFWS is considering for official listing under the ESA (USFWS 2021f). The prairie bush-clover and western prairie fringed orchid are both listed as threatened under the ESA anywhere they are found; critical habitat has not been established for either species (USFWS 2021g, 2021h). Des Moines ANGB is paved or covered in landscaped lawns with ornamental trees around some of the buildings. None of these species have been documented on Des Moines ANGB and are not likely to exist given the lack of natural areas they require.

Migratory Birds. The Migratory Bird Treaty Act (MBTA) and Bald and Golden Eagle Protection Act (BGEPA) protect migratory birds and bald eagle (*Haliaeetus leucocephalus*) and golden eagle (*Aquila chrysaetos*), respectively, from illegal take except under permit. There are seven migratory bird species protected by the MBTA that potentially occur at Des Moines ANGB, including the bald eagle, black-billed cuckoo (*Coccyzus erythropthalmus*), bobolink (*Dolichonyx oryzivorus*), lesser yellowlegs (*Tringa flavipes*), red-headed woodpecker (*Melanerpes erythrocephalus*), rusty blackbird (*Euphagus carolinus*), and wood thrush (*Hylocichla mustelina*) (USFWS 2021a). All these species except the bald eagle are Birds of Conservation Concern (USFWS 2021a). The most suitable habitat for migratory birds on the base is located in its wetland areas. Avoidance of tree management or tree removal from April to October would reduce adverse effects on these species. The 132 WG protects migratory birds by implementing the BASH Plan to minimize potential hazardous bird strikes with aircraft (BASH 2019).

The bald eagle is one species protected by the BGEPA that might occur in Polk County (USFWS 2021a); however, a 2003 survey reported that bald eagles do not occur at Des Moines International Airport or in the surrounding area, and the area does not support the required habitat to sustain the species (Des Moines International Airport 2003). If nests are established on Des Moines ANGB, construction and major disturbances within a 660-foot radius of the nest should be avoided from February 1 to August 15 (USFWS 2021c).

State-Listed Species. There are 43 species listed as endangered, threatened, or of special concern in Polk County (Appendix D) (Iowa DNR 2021); however, no flora or fauna surveys have been conducted for any of them on the installation. None of these species have been reported as incidental observations at Des Moines ANGB (IARNG 2017, BASH 2019). Natural features that would provide habitat for various species are not present on Des Moines ANGB, although they could occur as transients while moving from adjacent forested areas (IARNG 2021).

3.5.3 Environmental Consequences

3.5.3.1 Significance Criteria

Effects on biological resources would be considered significant if the action would reduce the distribution or viability of species or habitats of concern, including take of a listed species.

3.5.3.2 Proposed Action

Summary. The Proposed Action would have short-term less-than-significant effects on biological resources. Short-term minor adverse effects would be the result of site-specific temporary disturbance during construction. Proposed activities would not adversely affect existing vegetation or aquatic and terrestrial wildlife resources, including threatened and endangered species or rare species. Effects on biological resources would not reduce the distribution or viability of species or habitats of concern and would not violate biological resources laws or regulations. There would be less-than-significant loss, degradation, or fragmentation effects on wildlife habitat. In addition, the renovation of grounds and grading of the drainage area adjacent to the flight line to remove wildlife attractant (Project 7) would be beneficial to wildlife by keeping them away from aircraft areas.

Construction. Under the Proposed Action, construction, demolition, and renovation activities would have site-specific and temporary less-than-significant effects on biological resources. Construction would occur on previously disturbed land. Construction activities would displace locally common wildlife species that are adapted to high levels of human activity and disturbance. Any wildlife disturbed by construction activities, however, could temporarily or permanently relocate to similar habitat nearby.

NLEB and Indiana bat habitat is not available on the installation; therefore, the Proposed Action would have no impacts on these species. To the maximum extent feasible, if bats occupy buildings on the installation, building demolition or large-scale renovations to roof and wall areas should be conducted outside the maternity period of big brown bats and little brown bats (May 1–August 30) (IARNG 2017). Complying with the BASH Plan and avoiding tree removal on Des Moines ANGB during the migratory season would help minimize impacts on migratory birds.

Operations. The nature and overall level of operations at the base would be similar to existing conditions. The Proposed Action would have no additional effects on vegetation, wildlife, or

threatened and endangered species when compared to existing conditions; therefore, no effects on biological resources would be expected.

3.5.3.3 Alternative 1

Effects on biological resources from Projects 1 and 3–8 would be the same as those under the Proposed Action. The identified alternative for Project 2 is a long-range construction project and would undergo future specific NEPA analyses, tiering to this EA, when specific project planning details are available.

3.5.3.4 No Action Alternative

No effects on biological resources would be expected under the No Action Alternative. The construction, demolition, and renovation projects would not occur. The existing conditions of biological resources would remain unchanged. The wildlife attractant adjacent to the flight line that would be mitigated with Project 7 would not occur and would not meet airport requirements.

3.6 TRANSPORTATION AND CIRCULATION

3.6.1 Definition of Resource

Transportation and circulation are defined as the movement of goods and individuals from place to place and the infrastructure that supports that movement. In general, transportation in this EA refers to air, water, and ground vehicles and the services that use the infrastructure.

3.6.2 Existing Conditions

Regional and Local Circulation. The 132 WG and Des Moines ANGB are located on Des Moines International Airport in Polk County, south-central Iowa. Regional access to the installation is provided by Interstate 35 (I-35), which connects Des Moines with Minneapolis, MN to the north and Kansas City, MO to the south; I-80/I-235 connects Des Moines with Omaha, NE to the west and Chicago, IL to the east. Federal highways serving the area include U.S. Highway 65/69 to the north and south, and U.S. Highway 6 to the east and west of Des Moines. State highways include State Routes 163 and 46 to the east, and State Routes 28 and 5 to the west and south of the installation.

Mass transit to the region is provided by air, rail, and motor transportation systems. Des Moines International Airport is served by six major airlines and provides both domestic and international service. Amtrak provides rail service through Polk County, connecting to multiple destinations nationwide including Chicago, Denver, and Kansas City. Ground transportation systems to Des Moines include bus service as well as personal motor vehicles. Greyhound Lines, Inc. provides bus transportation from Chicago to Des Moines via their standard services (Greyhound 2021). The closest bus routes travel to downtown Des Moines approximately 5 miles from Des Moines ANGB.

On-Installation Circulation. Access to Des Moines ANGB is obtainable through the main entrance directly from McKinley Avenue. The guard shack and main gate are located approximately 200 ft from McKinley Avenue, providing an unobstructed view from the public road of the main gate. Entrance to the installation is also accessible from Park Avenue by way of SW 42nd Avenue, along the northwestern boundary of the installation. This entrance is frequently used by industrial traffic (IAANG 2015). The existing main gate does not provide separate public and administrative entrances as specified under AT/FP requirements, creates traffic congestion during training events and morning/evening rush hours, and does not comply with current AT/FP standards. A previous EA was prepared for main gate upgrades to meet AT/FP standards (IAANG 2015).

Several roads provide circulation throughout the installation, including Viper Drive, Super Saber Road, Mustang Drive, Air Cobra Drive, and several unnamed roadways through parking areas. The existing circulation pattern allows for privately owned vehicles (POVs) to travel unhindered throughout the installation. Viper Drive is the main connection between the east and west portions of the installation (IAANG 2015).

Parking. Parking at the 132 WG is available throughout the facility. Several of the parking lots, however, do not meet the minimum AT/FP standoff distance requirements. Parking issues generally arise during unit training assembly events, which occur approximately once a month.

3.6.3 Environmental Consequences

3.6.3.1 Significance Criteria

Effects on transportation and circulation would be considered significant if the Proposed Action would (1) require long-term closure of off-base roadways, (2) substantially increase congestion on any primary off-base roadways, or (3) otherwise interfere with the functionality of the regional transportation network.

3.6.3.2 Proposed Action

Summary. The Proposed Action would have short-term less-than-significant effects and long-term beneficial effects on transportation, traffic, and circulation. Short-term effects would result from construction vehicles and small changes in localized traffic patterns caused by construction and demolition projects. Long-term beneficial effects would result from the construction of the new ECF. The Proposed Action would not (1) require long-term closures of off-base roadways, (2) substantially increase congestion on any primary off-base roadways, or (3) otherwise interfere with the functionality of the regional transportation network.

Construction. The construction and demolition activities would require use of POVs and delivery trucks to and from the project sites. Construction traffic would compose a small percentage of the total existing traffic both on and off the installation and would occur at various times and various locations throughout the immediate area over a multiyear period. Road closures or detours to

accommodate utility system work would be expected in some on-base areas, creating short-term traffic delays. These effects would be primarily confined to on-base areas, would be temporary in nature, and would end with the construction phase.

There would be an incremental increase in off-base traffic from worker commutes and delivery trucks supporting the on-base demolition and construction activities. The local roadway infrastructure would be sufficient to support this limited increase in construction vehicle traffic, and there would be no perceptible change in off-base traffic conditions compared to existing conditions. Although the effects would be minor, NGB would implement the following measures:

- All demolition and construction vehicles would be equipped with backing alarms, two-way radios, and Slow-Moving Vehicle signs when appropriate.
- Demolition and construction traffic would be routed and scheduled to minimize conflicts with other traffic.
- Staging areas would be located to minimize traffic impacts.

Operations. The Proposed Action would not introduce long-term increases in personnel or traffic at the base. There would be no new permanent ongoing sources of congestion; therefore, no long-term changes in traffic would occur. The establishment of a new main gate would have long-term moderate beneficial effects on-base and off-base transportation infrastructure and traffic. These beneficial effects would be the result of the establishment of a new ECF and the addition of traffic-calming measures. The new ECF would provide separate public and administrative entrances in accordance with AT/FP requirements, reduce traffic congestion during training events and morning/evening rush hours, and comply with AT/FP standards.

3.6.3.3 Alternative 1

Effects on transportation and circulation from Projects 1 and 3–8 would be the same as those under the Proposed Action. The identified alternative for Project 2 is a long-range construction project and would undergo future specific NEPA analyses, tiering to this EA, when specific project planning details are available.

3.6.3.4 No Action Alternative

No effects on transportation or circulation would be expected under the No Action Alternative. The construction, demolition, and renovation projects would not occur. Existing conditions would remain unchanged, and there would be no effects on transportation or traffic.

3.7 CULTURAL RESOURCES

3.7.1 Definition of Resource

Cultural resources are defined as prehistoric or historic districts, sites, buildings, structures, or objects considered important to a culture, subculture, or community for scientific, historical, traditional, religious, or other purposes. They include archaeological, architectural, and

traditional resources. Archaeological resources comprise artifacts, features, or other archaeological indications of past human life or activities from which archaeologists interpret information about history or prehistory. Architectural resources include buildings, structures, landscapes, and objects that document the history of an area. Traditional resources can include archaeological or architectural resources as well as places or natural features that Native American groups or other groups consider essential for the persistence of traditional culture or practices.

Cultural resources are determined to be significant if they are listed or eligible for listing in the National Register of Historic Places (NRHP). The NRHP is the official list maintained by the federal government of the nation's prehistoric, historic, and ethnographic buildings, structures, sites, districts, and objects considered significant at a national, state, or local level. Listed resources can have significance in the areas of history, archaeology, architecture, engineering, or culture. Cultural resources listed in the NRHP or determined to be eligible for listing have been documented and evaluated according to uniform standards specified in 36 CFR § 60.4 and found to meet criteria of significance and integrity. Generally, resources evaluated for eligibility are 50 years old or older. Exceptions to that standard include resources associated with the Cold War era or Native American cultural properties. Cultural resources that meet the criteria for listing in the NRHP, regardless of age, are called "historic properties." Resources that have undetermined eligibility are treated as historic properties until a determination is made.

Federal statutes that would be most applicable to this EA are those surrounding the protection and excavation of human remains, including the Native American Graves and Repatriation Act (NAGPRA). In addition to NAGPRA, a number of other federal laws, regulations, and executive orders address cultural resources and federal responsibilities regarding them.

National Historic Preservation Act. Foremost among these statutory provisions, and most relevant to the current analysis, is Section 106 of the NHPA (54 U.S.C. § 300101 *et seq.*).

Section 106 of the NHPA requires federal agencies to take into account the effect of their undertakings on historic properties. The regulations that implement Section 106 (36 CFR Part 800) describe the process for identifying and evaluating historic properties; assessing effects of federal actions on historic properties; and consulting with the relevant State Historic Preservation Office, Tribal Historic Preservation Office(s), federally recognized tribes, and other interested parties to avoid, minimize, or mitigate any adverse effects. The NHPA does not mandate preservation of historic properties, but it does ensure that federal agency decisions concerning the treatment of those properties result from meaningful consideration of cultural and historical values and identifying options available to protect the properties. As part of the Section 106 process, agencies are required to consult with the State Historic Preservation Officer (SHPO) on their determinations and decisions. Federal agencies are responsible for assessing the effects on historic properties that are listed or could be listed in the NRHP that fall within the area of potential effect (APE) of their project. According to 36 CFR § 800.16(d):

> The area of potential effects means the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.

For the projects discussed in this EA, the NGB, in consultation with the Iowa SHPO, determined the APE to be the areas where ground disturbance is occurring, staging areas are located, and facilities/infrastructure are being renovated or demolished.

3.7.2 Existing Conditions

3.7.2.1 Archaeological and Architectural Cultural Resources

As summarized in the Des Moines ANGB Integrated Cultural Resource Management Plan (ICRMP), 132 WG contracted two cultural resource surveys on the installation. A survey of archaeological and historic resources in 1996 investigated two undeveloped areas of the base, totaling 69.4 acres. The survey identified no archaeological or historic resources in the area. The Iowa SHPO provided no feedback on the cultural resource survey within the 30-day comment period, concurring by default on February 25, 1999.

A second cultural landscape study, conducted in 2002, included a pedestrian survey and limited shovel testing along the northern side of the main runway and at several small, non-contiguous areas on the northern perimeter of the base. The survey identified no archaeological resources in the area. The Iowa SHPO concurred with the cultural landscape study on November 3, 2003.

Based on the 1996 and 2002 cultural resource survey, approximately forty-five percent of Des Moines ANGB has received intensive archaeological investigation and the entire base has been subjected to pedestrian survey.

As noted in the Des Moines ANGB ICRMP, the base, with support from the NGB, has evaluated thirty-seven standing structures under the criteria established in the NRHP. Only Building 100, the base's wing headquarters and aircraft maintenance hangar, is determined eligible for listing in the NRHP.

3.7.2.2 Traditional Cultural Resources

Currently, no known traditional cultural resources, including Traditional Cultural Properties or sacred sites, have been documented within the Des Moines ANGB. The NGB initiated consultation with seven federally recognized tribes identified as attaching religious or cultural significance to the property via email and certified letter on October 18, 2021. In accordance with Executive Order (EO) 13175, Consultation and Coordination with Indian Tribal Governments; EO 12372, Intergovernmental Review of Federal Programs; and NHPA Section 106 (36 CFR §§ 800.2–4), the 132 WG and NGB also invited the tribes to consult on a range of issues that included the effects of the proposed projects on cultural resources, identifying possible

traditional cultural resources, and protocols for issues of concern. Table 3-8 lists the tribes contacted and the return receipts for the coordination letters. No tribal responses were received.

Table 3-8: Tribal Coordination

Tribe Contacted	Coordination Letter Return Receipt Dated
Apache Tribe of Oklahoma	10/20/21
Iowa Tribe of Kansas and Nebraska	10/25/21
Iowa Tribe of Oklahoma	10/21/21
Menominee Indian Tribe of Wisconsin, Historic Preservation	10/22/21
Sac and Fox Nation of Missouri in Kansas and Nebraska	10/25/21
Sac and Fox Nation Oklahoma	10/26/21
Sac and Fox Tribe of the Mississippi in Iowa	10/21/21

3.7.3 Environmental Consequences

3.7.3.1 Significance Criteria

This section discusses the environmental effects of the Proposed Action and No Action Alternative on cultural resources. Effects on cultural resources would be considered significant if the ANG did not conduct and complete proper coordination with the Iowa SHPO before physically altering, damaging, or destroying all or part of a cultural resource or introducing visual or audible elements that are out of character with a historically sensitive property.

Under Section 106 of the NHPA, an action might have no effects on historic properties (a no historic properties finding), no adverse effects on historic properties, or adverse effects on historic properties. The *NEPA and NHPA: A Handbook for Integrating NEPA and Section 106* (CEQ and ACHP 2013) notes that “An adverse effect in the Section 106 process does not necessarily mean an agency will be unable to reach a FONSI.” Although the Section 106 regulations state that a NEPA determination of “significant effects” that requires the preparation of an EIS should include consideration of effects on historic properties, neither NEPA nor Section 106 requires the preparation of an EIS solely because the proposed undertaking has the potential to adversely affect a historic property. An adverse effect under Section 106 would not necessarily be significant under NEPA if effects were not considered significant (under 40 C.F.R. § 1508.27) and could be mitigated. Additionally, implementing measures developed to minimize or mitigate adverse effects on historic properties under Section 106 could result in an action having no significant impacts on cultural resources under NEPA.

3.7.3.2 Proposed Action

As illustrated in Table 2-1, the Proposed Action consists of implementing two short-range and six long-range facility improvement projects that include demolition, construction, and repair of buildings and facilities at the Des Moines ANGB.

3.7.3.2.1 Archaeological Resources

For archaeological resources, no historic properties would be affected by implementation of the Proposed Action. There are no significant impacts to archaeological resources.

3.7.3.2.2 Architectural Resources

Implementation of the Proposed Action would directly impact five buildings (B110, B180, B231, B276, and B302) at Des Moines ANGB. B276 and B302 are not historic-age and were built outside of the period of significance for Cold War Era resources. As such, they were not evaluated under the criteria of the NRHP. B180 is not yet fifty years of age, but was determined not eligible for the NRHP as a Cold War Era resource in the 2002 landscape survey. In February of 2022, the NGB determined B110 and B231 to be not eligible for the NRHP with Iowa SHPO concurrence. In addition to the five identified buildings, the NGB also considered indirect effects to B100, an NRHP-eligible property, and determined the Proposed Action would have no impact to the viewshed of the building. Historic structures identified within the APE of the Proposed Action projects are listed in Table 3-9. In fulfillment of Section 106, the NGB submitted determinations of ineligibility for B110, B180, and B231 and a finding of no historic properties affected to Iowa SHPO. The Iowa SHPO concurred on June 7, 2022. The Proposed Action will have no significant impacts to historic properties.

Table 3-9. Historic Structures and Proposed Action Projects with Potential for Direct/Indirect Effects

Building #	Building use	Year built	Projects with direct effects	Projects with indirect effects	NGB and SHPO concurrence
100	Administration Building	1943	N/A	N/A	Eligible
110	Operations and training	1961	5	1, 2b, 6b, 7	Not eligible
180	Distributed Training Operations Center	1977	2	N/A	Not eligible
231	Disaster preparedness, social actions, and chaplain	1961	1	2b, 5, 6b, 7	Not eligible

3.7.3.2.3 Traditional Cultural Resources

According to the 2020–25 ICRMP, no traditional cultural resources have been identified within the Des Moines ANGB; therefore, the Proposed Action would not affect any known traditional cultural resources.

3.7.3.3 Alternative 1

Implementation of the Proposed Action project alternative will result in no historic properties affected. There will be no significant impacts to historic properties.

3.7.3.4 No Action Alternative

No effects on cultural resources would be expected under the No Action Alternative. The construction, demolition, and repair/renovation projects would not occur. Existing conditions would remain unchanged, and there would be no effects on cultural resources.

3.8 HAZARDOUS MATERIALS AND WASTES, SOLID WASTE, AND OTHER CONTAMINANTS

3.8.1 Definition of Resource

The term "hazardous materials" refers to substances defined as hazardous by the Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. § 9601.33), and the term "hazardous waste" refers to wastes defined as hazardous by the Solid Waste Disposal Act, as amended by RCRA. Hazardous substances are materials that, by any exposure pathway (skin, lungs, ingestion, or mucus membranes), might cause serious physical damage to a person or other organism (e.g., cancer, genetic mutation, or harm fetal health) when improperly treated, stored, transported, disposed of, or otherwise managed. These substances are to be managed according to regulatory guidelines for the safety of public health and the environment.

AFPD 32-70, *Environmental Quality*, and the AFI 32-7000 series incorporate the requirements of all federal regulations and other AFIs and DoD directives for the management of hazardous materials, hazardous wastes, and special hazards. Evaluation extends to generation, storage, transportation, and disposal of hazardous wastes when such activity occurs at or near the project site of a proposed action.

Special hazards are those substances that might pose a risk to human health and are addressed separately from other hazardous substances. Special hazards include ACM, LBP, and PCBs. The Toxic Substances Control Act grants EPA the authority to regulate these special hazard substances.

The State of Iowa is not authorized by EPA to administer a hazardous waste regulatory program, but is part of the US EPA Region 7 program federally administered from the Region 7 office located in Kansas City, KS. State regulations include hazardous waste fees and two state programs, Chapter 133 and Chapter 137.

3.8.2 Existing Conditions

The 132 WG manages hazardous materials and wastes in accordance AFI 32-7042, *Waste Management;* a base-specific SPCC plan (132 WG 2020) compliant with 40 CFR 112, *Oil Pollution Prevention;* AFI 10-2501, *Air Force Emergency Management Program Planning and Operations*; and DoD Directive 5030.41, *Oil and Hazardous Substances Pollution Prevention*

Contingency Program. Hazardous waste management programs provide guidance to personnel who work with hazardous waste and prescribe the roles and responsibilities with respect to the waste stream inventory, waste analysis plan, hazardous waste management procedures, training, emergency response, and pollution prevention. The SPCC plan provides guidance specific to hazardous material and petroleum containment, handling, disposal, and emergency response. These resources are intended to be used as single-source documents and, consequently, might contain overlapping information. All guidance documents for operations conducted at Des Moines ANGB are regularly reviewed and updated to ensure compliance with current federal, state, and local requirements regarding the management of hazardous wastes as they relate to environmental protection and worker safety. Guidance documents apply to all base personnel and external support organizations at Des Moines ANGB.

The 132 WG is regulated as a very small small-quantity generator of hazardous waste and has been assigned EPA identification number IA6572890022 (IARNG 2017). This means that 132 WG generates no more than 220 pounds of hazardous waste in a single month. Hazardous waste is separated and temporarily stored on-base before being transferred off-base to a permitted hazardous waste transportation, storage, and disposal facility.

Hazardous materials are used throughout Des Moines ANGB for various routine functions, including ground vehicle maintenance, POL management, and facilities maintenance and repair. Sources of these materials may include electrical components, heating and cooling systems, generators, storage tanks, chemical pest control, and POL (i.e., coolants, fuels, grease, lubricating oil, and solvents).

ACM, LBP, and PCBs are special hazards, with specific handling and abatement requirements that differ from other hazardous materials. In facilities constructed prior to the 1980s, special hazards can reasonably be assumed to be present. Facilities known to have or suspected of having special hazards would be inspected by a licensed contractor. Special hazards would be removed, stored, and disposed of in accordance with applicable federal, state, and local regulations.

Facilities on Des Moines ANGB are known to contain special hazards (132 FW 2001) and the installation has a base-specific Asbestos Management Plan and Lead Management and Exposure Control Plan (ANG 2005b, 132 FW 2003). In addition, several surveys have been conducted to document the present condition of special hazards on-base (132 FW 2001, IMPACT7G 2017a, IMPACT7G 2017b, EMSL 2021).

Installation Restoration Program. The objective of the Installation Restoration Program (IRP) is to identify and fully evaluate any areas suspected to be contaminated with hazardous materials caused by past operations and to eliminate or control any hazards to public health, public welfare, or the environment. There are seven closed No Further Action sites at Des Moines ANGB (132 WG 2020): six sites are closed without restrictions and one site, ST001, is closed with

implemented land use controls. ST001 is a leaking underground storage tank located at a former vehicle maintenance fuel tank area south of B105. This IRP site is within a tract that will be transferred to the ARNG.

Emerging Contaminants. Per- and polyfluoroalkyl substances (PFAS) are emerging contaminants with no maximum contaminant level guidelines from the EPA because their effects on humans and the environment are still under active research (USEPA 2016). A health advisory has been issued for perfluorooctanesulfonic acid and perfluorooctanoic acid, but health advisories are non-regulatory guidelines. Des Moines ANGB conducted a preliminary base-wide assessment in 2016 (132 WG 2020). The assessment recommended 14 locations for further evaluation because of known releases of PFAS-containing materials. Figure 3-3 shows the approximate location of PFAS areas of interest on-base.

3.8.3 Environmental Consequences

3.8.3.1 Significance Criteria

Effects would be considered significant if the Proposed Action would (1) cause or increase the risk of human exposure to hazardous substances without adequate protection; (2) substantially increase the risk of spills or releases of hazardous substances; (3) disturb the progress of cleanup activities so adverse effects on human health or the environment could result; (4) conflict with established land use controls; or (5) result in noncompliance with applicable federal, state, or local laws and regulations or with permits related to hazardous materials and wastes.

3.8.3.2 Proposed Action

Summary. The Proposed Action would have short- and long-term less-than-significant effects on the presence and use of hazardous materials and wastes. Short-term minor adverse effects would be the result of increased use of hazardous materials and generation of wastes during construction, demolition, and renovation activities. Long term, the Proposed Action would cause a less-than-significant increase in the use of hazardous materials and generation of hazardous waste as a result of the additional operation and maintenance requirements of the new, expanded facilities. Overall, the Proposed Action would reduce the likelihood of exposure to, or potential contamination from, hazardous materials and wastes. Hazardous materials would be removed by demolition and renovation of outdated facilities and systems; therefore, long-term effects would be less than significant on the use of hazardous materials and wastes management at Des Moines ANGB.

Construction. The use of hazardous materials and generation of wastes would occur at the construction, demolition, and renovation areas; however, the increase in hazardous materials and wastes would be limited and temporary. General construction activities involve hazardous materials such as batteries, pesticides, and POLs for site maintenance. Use of hazardous materials and management of hazardous waste would involve some minor risk of spills and human exposure; however, NGB would minimize those risks by complying with established

management plans for hazardous materials and wastes and spill prevention and response. Construction BMPs would be implemented at all sites, including personnel safety training, proper storage and signage of containers, routine inventory, and readily available Safety Data Sheets for all hazardous materials used on-site. In addition, equipment would receive regular maintenance and drip pans would be used for vehicles when they are stationary to prevent contamination from leaks.

Contractors on-site would comply with local, state, and federal regulations for the use, handling, and disposal of hazardous materials. All construction sites would have a designated Health and Safety Officer on-site to ensure compliance with applicable regulations and the Health and Safety Plan (HASP). The HASP is a site-specific document required by OSHA that details items such as job hazard analysis, employee training, required personal protective equipment (PPE), exposure monitoring, and contamination response for the site. A printed copy of the plan would be kept at every project site for reference and would be updated if changes occur.

Trenching and digging operations would require prior coordination with installation personnel. Approved dig permits would be obtained prior to commencing work as well as documentation indicating that any fill brought on-site is clean. If contaminated soils or groundwater are encountered during construction, installation or contractor personnel would manage it in accordance with Air National Guard Readiness Center, AFCEC, and Air Force guidance. With proper media management no further contamination or migration of PFOS or PFOA from the soil or groundwater would be expected to occur. Future sampling events and project construction would be coordinated with regulatory agencies, as needed. The 132 WG would ensure that the Proposed Action would not interfere with future PFAS investigations and would appropriately handle any excavated soils.

Short-term minor adverse effects would also result from sites at which renovation and repair of facilities could expose materials that require special handling, such as ACM, LBP, and PCBs; however, removal of those materials would result in long-term beneficial effects because it would eliminate future threats to human health and the environment. Workers on-site would be advised, to the maximum extent known, of the type, condition, and quantity of hazardous materials that might be present and be required to use appropriate PPE. Testing would be conducted, as necessary, by a licensed contractor to determine presence and extent of special hazards in a facility.

The safe handling, storage, and use of hazardous materials and wastes would be completed in accordance with all federal, state, and local regulations. Solid wastes generated over the course of the construction period would be collected and transported off-site as necessary to a permitted landfill or handled in accordance with the Solid Waste Management Plan (132 WG 2018). Disposal of special wastes would require prior coordination with installation personnel to ensure the appropriate permits are obtained. Construction debris would be recycled or reused as much as possible in accordance with 10 U.S.C. §2577, *Disposal of Recyclables Materials*, 32 CFR §172

(b), *Disposition of Proceeds from DOD Sales of Surplus Personal Property*, or managed in accordance with Air Force Manual 32-7002, *Environmental Compliance and Pollution Prevention*. The effect of these activities would be less than significant.

Renovation and repair activities would be performed in accordance with federal, state, and local regulations. These activities would have short- and long-term less-than-significant effects on hazardous materials and wastes.

If a storage tank is on a project site, it may have to be drained and removed before construction activities begin. If that is the case, contractor personnel would visually inspect the storage tank for damage and leaks. If there is evidence of a release of a tank's contents or if the tank is being replaced, the tank would be drained and removed, and the surrounding soil would be sampled to determine if hazardous material concentrations are above regulatory limits. If they are, installation personnel would be notified. Soil containing hazardous materials would be excavated, stored in a separate spoil pile, and disposed of off-site at an approved facility. The drained contents of the storage tank would be stored in labeled containers and disposed of in accordance with applicable regulations for that material. Confirmation sampling would be conducted to ensure that all contaminated soils have been removed.

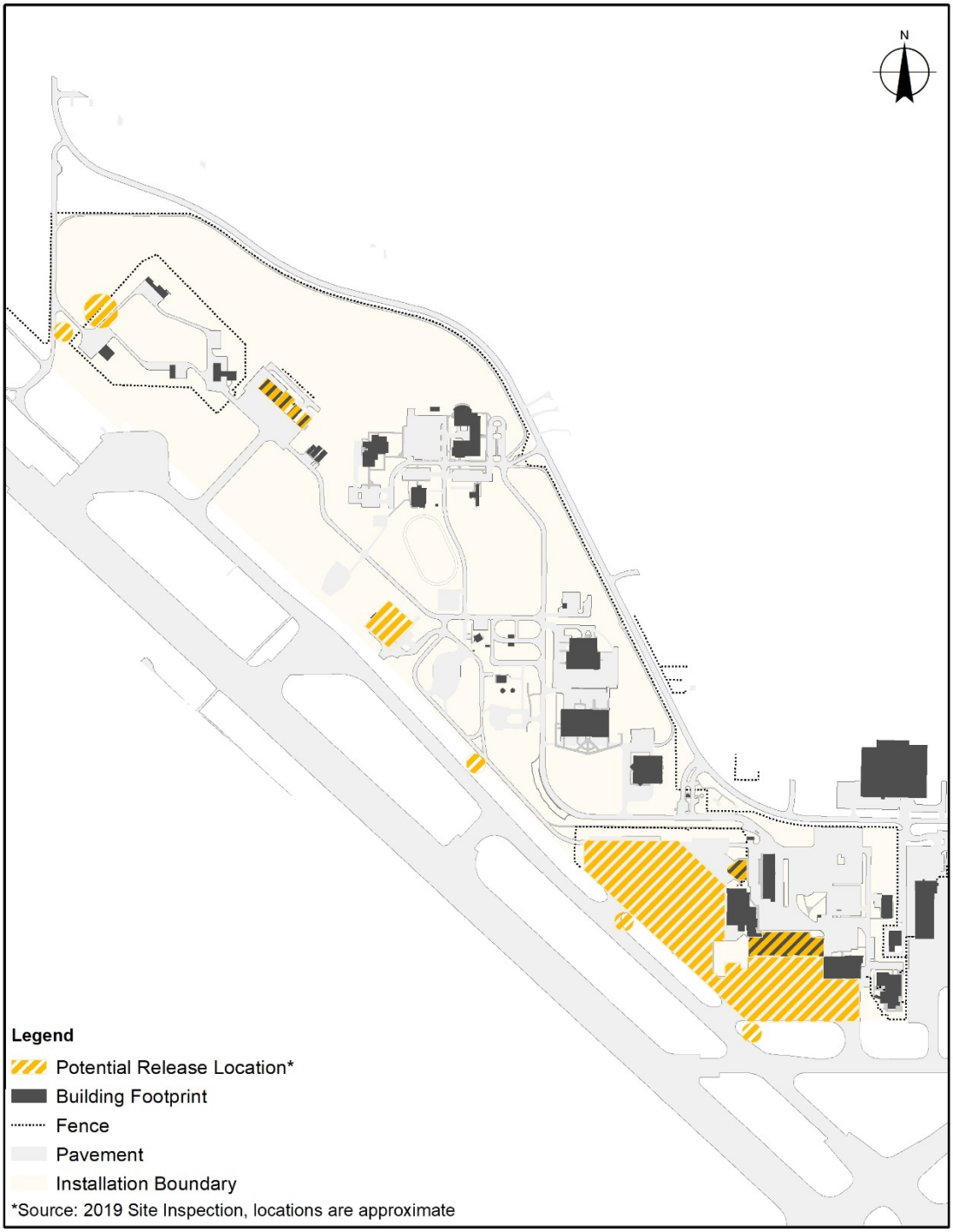
In the unlikely case that unexpected contamination is observed, installation personnel would be notified to determine the next steps.

Operations. The use, generation, or disposal of hazardous materials and wastes after implementation of the Proposed Action would be minor compared to the levels under the existing conditions. This would result from new facilities being constructed and renovated to meet mission requirements. The Des Moines ANGB waste management protocols and SPCC plan would guide long- and short-term hazardous materials management and would continue to ensure compliance with DoD Directive 5030.41 *Oil and Hazardous Substances Pollution Prevention and Contingency Program*. Long-term beneficial impacts on hazardous materials and petroleum product management could occur with respect to storage conditions because the older buildings would be replaced or renovated and would have upgraded hazardous material and petroleum product storage areas. The proposed activities would not result in substantially different operational activities; therefore, the Proposed Action would result in less-than-significant adverse effects with respect to hazardous materials and wastes.

3.8.3.3 Alternative 1

Effects on generating and managing hazardous materials and wastes, solid waste, and other contaminants from Projects 1 and 3–8 would be the same as those under the Proposed Action. The identified alternative for Project 2 is a long-range construction project and will undergo future specific NEPA analyses, tiering to this EA, when specific project planning details are available.

**Figure 3-3: Potential PFAS Release Locations
Air National Guard 132 WG, Des Moines, Polk County, IA**



3.8.3.4 No Action Alternative

No effects on generating or managing hazardous materials and wastes would be expected under the No Action Alternative. The construction, demolition, and renovation projects would not occur. The handling, use, and transportation of hazardous materials would remain unchanged compared to existing conditions.

3.9 UTILITY INFRASTRUCTURE

3.9.1 Definition of Resource

Utility infrastructure includes basic resources and services required to support planned construction and operations activities and the continued operation of existing facilities. For the purposes of this EA, utility infrastructure is defined as potable water, sanitary sewer, stormwater, electricity, and natural gas systems.

3.9.2 Existing Conditions

This section summarizes available information on the condition of the utility systems at Des Moines ANGB. Table 3-10 provides a summary of the base's primary utilities, and Figure 3-4 shows the approximate layout of the utilities on-base.

Table 3-10. Primary Utilities at Des Moines ANGB

Utility	Provider	Service size
Water (potable)	Des Moines Water Works	8-inch main, 2-inch–8-inch-diameter pipe
Sanitary sewer	City of Des Moines	8-inch main
Electricity	MidAmerican Energy	Overhead and underground lines
Natural gas	MidAmerican Energy	8-inch main

Source: Iowa ANG 2018.

Water System. Water is provided to the installation by Des Moines Water Works. The on-site water system lines vary in size from 2- to 8-inch-diameter pipe. The on-site system is connected to the public water system at four locations: two for the east side of the base and two for the west side of the base through an 8-inch-diameter main located in the street right-of-way (ROW) of SW 34th Street and McKinley Avenue (Iowa ANG 2018). The water distribution system was constructed in 1977. Several water lines have had leaks caused by corrosion repaired. Portions of the water system are failing and have been identified for repair by replacement. Water pressure on the installation is poor to marginal, and water system upgrades are needed to provide reliable, uniform pressure throughout the base. Additionally, the low water pressure affects fire suppression capabilities to all buildings (ANG 2013, NGB 2018).

Sanitary Sewer System. Sanitary sewers include two separate systems serving the east and west sides of the base. The east side is served by an 8-inch-diameter trunk sewer. The on-site wastewater is collected at a pump station on the extreme southeast corner of the leasehold. The flows are pumped to a trunk sewer easterly to Fleur Drive. The west side is served by an 8-inch

sanitary sewer that extends easterly to the SW 31st Street trunk sewer. The sewage is pumped off-site to the Des Moines Wastewater Treatment Plant (NGB 2018).

Stormwater System. Most of the storm sewers that serve the installation discharge southwesterly to drainage swales draining to Frink Creek. The northwest part of the base is served by storm sewers that discharge northwesterly to an infiltration basin located in the northwest part of the base. The basin discharges to a drainage swale that is also a tributary to Frink Creek. An additional infiltration basin serves the central part of the installation and is near the former POL yard and B430.

Electrical System. Electrical power is supplied by MidAmerican Energy (NGB 2018). The electrical system has been identified as requiring upgrades to maintain reliability and increase electrical capacity on the base (NGB 2018).

Natural Gas System. Natural gas service is provided by MidAmerican Energy. The gas service is obtained from a gas main located within the SW 34th Street ROW (NGB 2018). The gas system was constructed in 1977. During repair of a gas line that failed, the contractor excavated a portion of the gas system. Additional areas of corrosion and other system issues were discovered; the gas system requires replacement of lines and associated equipment (ANG 2013).

3.9.3 Environmental Consequences

3.9.3.1 Significance Criteria

Impacts on utility infrastructure would be considered significant if the Proposed Action increased demand on utilities so that systems were unable to keep up with the demand. Less-than-significant impacts would occur if demands were increased on local utilities, but the systems had sufficient capacity to handle the increased demand, or the increased demand could be mitigated or managed by implementing BMPs.

3.9.3.2 Proposed Action

Under the Proposed Action, the following projects would involve modifying and improving the existing utility infrastructure:

- Project 1 would involve demolition of B110 and B231. A new consolidated support facility occupying 27,250 SF would be built in the footprint of B231, in accordance with UFC 1-200-02, *High Performance and Sustainable Building Requirements*. Numerous energy saving measures would be realized through an energy-efficient heat, ventilation, and air conditioning system. The project would also include necessary exterior utilities upgrades/repairs, access pavements, fire protection, and site-related support work.
- Project 2 would involve renovating and constructing an addition to existing B180 to provide an additional 12,320 SF of space for on-site storage of mission equipment and to house operations. The project would also include necessary exterior utility upgrades/repairs, access pavements, fire protection, and site-related support work.

- Project 3 would involve base-wide repair and upgrade of utility lines (for water, gas, and sewer). During construction activities, temporary and localized disruption of service would occur. The disruptions, however, would be short-term and minor.
- Project 4 would involve base-wide construction and demolition of parking, repair of base roads, and repair of grade and stormwater drainage to address flooding issues.
- Project 6 would involve constructing a new 14,600 SF combined facility for dedicated disaster preparation, deployment processing, and base gymnasium activities.
- Project 7 would involve site grading to improve surface water drainage near the flight line.
- Project 8 would involve installing one 5,000-gallon unleaded fuel AST and one 5,000-gallon diesel AST and all required supporting infrastructure.

Overall, the projects under the Proposed Action would beneficially impact the base's infrastructure, as further described below.

Water System. Under the Proposed Action, the water distribution system would be improved during implementation of Project 3. This project involves repair of water line mains and branches. In general, lines, connectors, valves, tees, and associated parts and equipment would be replaced. Additional improvements to the domestic water system would be made in discrete areas during implementation of new facility construction and renovation. During operations, potable water usage would not change significantly, with possible reductions in use as pipe leakage repairs and installation of more efficient and water saving technology is employed during new construction. If water system repairs are conducted in areas containing soil or groundwater contamination, excavated soils and any groundwater removed (during dewatering) would require proper handling to minimize the potential for releasing additional chemicals of concern (COCs) into the environment during construction. Mitigation measures may include isolating the potentially contaminated excavated soils in polyethylene sheeting; groundwater removed during dewatering could be stored in a frac tank. The soils and groundwater would require characterization to determine the proper method of disposal, which could include off-site disposal at an approved facility, should COCs be above applicable criteria. With proper soil and groundwater management, the potential release of contaminants would be minimized. Additionally, utility repairs would likely be above the groundwater table, which is encountered between 5 ft and 7 ft below grade (ANG 2019).

Sanitary Sewer System. Under the Proposed Action, improvements to the sanitary wastewater system would be completed during implementation of Project 3. Additional improvements would be made in discrete areas during implementation of new facility construction and renovation. During operations, wastewater generation would not change significantly.

Stormwater System. Under the Proposed Action, the base stormwater system would be improved during implementation of Projects 4 and 7. These projects would involve construction and demolition of parking, repair of base roads, and repair of grade and stormwater drainage to address flooding issues. It should be noted that Project 7 is near Potential Release Site 04, near

the northwestern boundary of the base, where PFAS is a COC. The grading work appears to be upslope of Outfall 004. Soils disturbed during grading improvements, however, could lead to sedimentation of Frink Creek. Soils disturbed during grading would require immediate stabilization and installation of erosion control devices to reduce the impact on Frink Creek, which flows off-site, eventually discharging to the Raccoon River. The grading work should be conducted during a dry time of the year to minimize the potential impact on the creek.

Electrical System. Under the Proposed Action, improvements to the electrical system would be made in discrete areas during implementation of new facility construction and renovation. During operations, electrical consumption is not expected to change significantly.

Natural Gas System. Under the Proposed Action, the natural gas system would be improved during implementation of Project 3. This project involves repair of west campus gas line mains and branches. In general, lines, connectors, valves, tees, and associated parts and equipment would be replaced. Additional improvements to the natural gas system would be made in discrete areas during implementation of new facility construction and renovation. During operations, natural gas consumption is not expected to change significantly.

3.9.3.3 Alternative 1

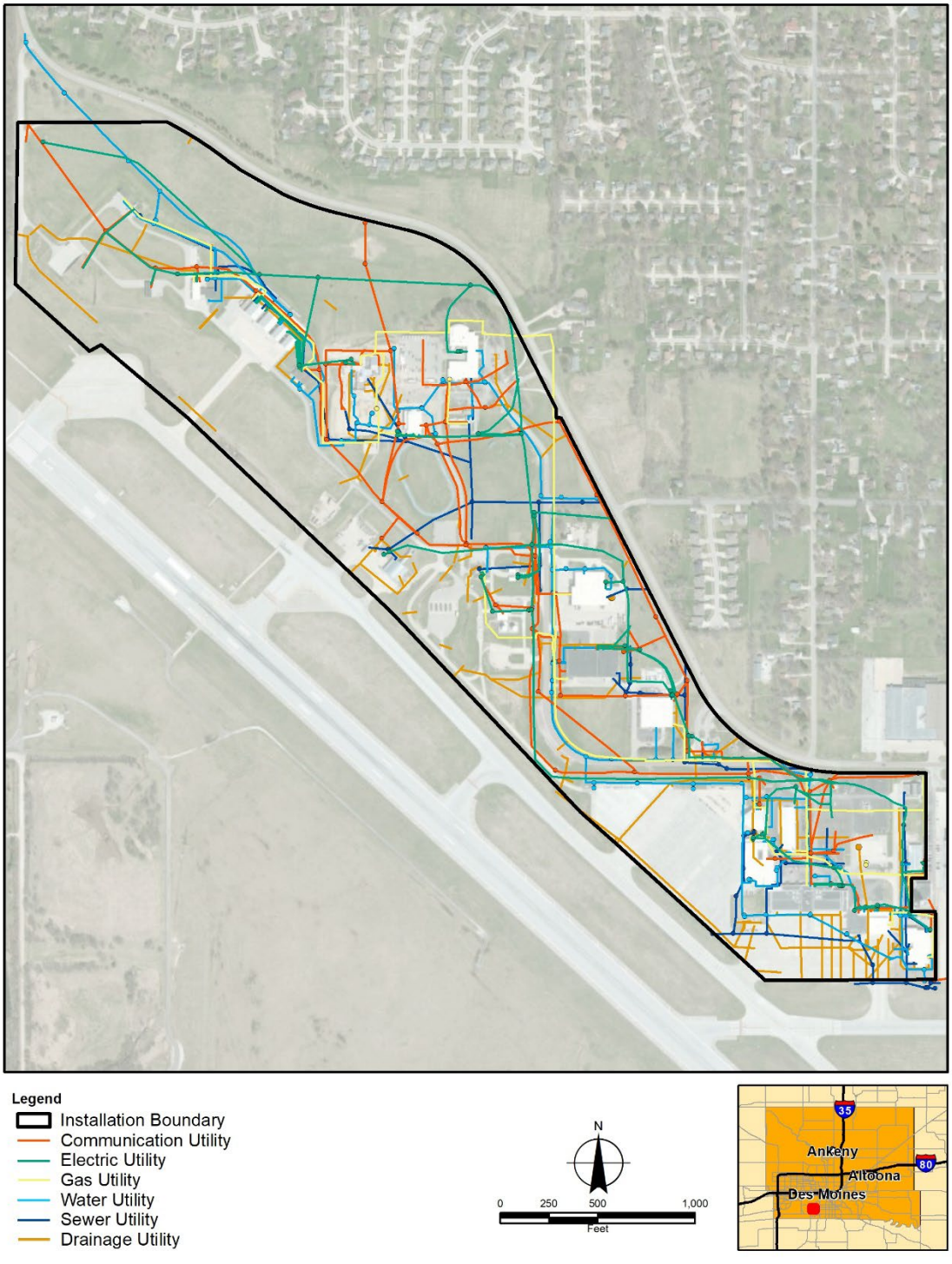
Effects on utility infrastructure from Projects 1 and 3–8 would be the same as those under the Proposed Action. The Project 2 alternative entails new construction of a stand-alone, 29,916-SF DTOC facility to provide on-site storage of mission equipment and house operations, as opposed to adding onto and renovating B180 as in the Proposed Action. Impacts from implementing Alternative 1, however, would be similar to those from the Proposed Action in that utilities upgrades/repairs, access pavements, fire protection, site work, and related support would be performed.

Long-term beneficial impacts would be expected on the local infrastructure (particularly the water, sewer, and natural gas systems) because renovation and improvements would be made to support those systems. There are no expected issues with infrastructure capacity since demand on infrastructure resources is not expected to increase significantly during operations and because infrastructure would be improved during implementation of Project 3 to help meet operational requirements.

3.9.3.4 No Action Alternative

Under the No Action Alternative, the 132 WG would not implement the Proposed Action. The 132 WG would not implement the facility improvement construction and renovation projects to meet mission requirements or AT/FP standards. Demolition of outdated, inefficient facilities also would not occur. Existing conditions would remain unchanged and potential impacts would be associated with the aging utility systems and facilities with identified deficiencies that require repair and upgrade to ensure safety and continued operation. Both continued use and additional

Figure 3-4: Existing Utilities
Air National Guard 132 WG, Des Moines, Polk County, IA



demand on the infrastructure without renovation would lead to eventual system failure and mission requirements not being met, while potential health and safety risks would increase. Current and planned activities at the ANGB would continue as required to support various missions.

3.10 REASONABLY FORESEEABLE ACTIONS

NGB has considered reasonably foreseeable actions that might have reasonably close causal relationships to the Proposed Action, looking at reasonably foreseeable actions or current or past actions with ongoing impacts, the effects of which could combine with those of the Proposed Action to produce an overall impact. This EA does not consider future actions that are speculative.

NGB conducted a review of the most recent planning documents (within the last 10 years) for the geographic areas of the City of Des Moines and Polk County to identify other ongoing or reasonably foreseeable projects in addition to those outlined in the IDP. The planning documents reviewed include the following:

- *City of Des Moines Capital Improvement Plan 2020–2021/FY 2025–2026*
- *City of Des Moines Transportation Master Plan 2018*
- *Des Moines International Airport Development Plan 2020*
- *Des Moines Strategic Plan 2016—2021–2031*
- *City of Des Moines Future Land Use Map 2016*

After a review of these planning and development-based documents, no reasonably foreseeable projects were identified that would have close causal relationships to the Proposed Action. The projects outlined in the reviewed plans were either speculative in nature, were temporally or geographically remote, or would require a lengthy causal chain to connect them with the Proposed Action; therefore, none were carried forward for detailed evaluation in this EA.

Table 3-11. Reasonably Foreseeable Projects and Planning Efforts

Planning documents	Projects identified	Implementation timeline	Would the effects from the project be temporally or geographically remote?	Would the project have a reasonably close causal relationship to the Proposed Action?
– City of Des Moines Capital Improvement Plan 2020–2021/FY 2025–2026 – City of Des Moines Transportation Master Plan 2018 – Des Moines International Airport Economic Development Plan 2020 – Des Moines Strategic Plan 2016–2021–2031 – City of Des Moines Future Land Use Map 2016	DSM safety and infrastructure improvements to rehabilitate the runway, taxiways, and taxiway lighting. DSM apron development on the south side of runway 5/23, including general aviation, corporate hangar, and runway 5 south along Army Post Road. DSM improvements in and around the terminal, including a new terminal gateway, and parking on the east side of the airport along Fleur Drive. Low density residential development along McKinley Avenue adjacent to the 132 WG. Proposed development of bike lane along McKinley Avenue.	2016–2026	No, projects could occur at the same time as IDP projects, and DSM and proposed residential development is adjacent to Des Moines ANGB.	No

Note: DSM = Federal Aviation Administration code for Des Moines International Airport.

4.0 MANAGEMENT ACTIONS/SPECIAL PROCEDURES

This section summarizes special operating procedures associated with this EA. “Special operating procedures” are defined as measures that would be implemented to address minor potential environmental effects associated with implementing the Proposed Action. The measures would follow the base’s management plans for air quality, cultural resources, hazardous wastes, natural resources, solid waste, spill prevention, stormwater pollution prevention, and wildlife hazards. The environmental protection measures described in this EA and standard BMPs, such as implementing control measures to reduce fugitive dust emissions, engineering and site development to account for soil constraints, conforming to all federal, state, and local requirements related to stormwater pollution prevention during construction activities, and safe removal of any potentially hazardous materials prior to initiating demolition activities would be applied.

Environmental protection measures are actions used to minimize impacts that are not required by statutes or regulations or to fulfill permitting requirements, but are typically measures implemented during design and construction phases of a project to reduce impacts on the environment. BMPs are actions required by statutes or regulations or to fulfill permitting requirements that reduce the significance of potential impacts. None of the environmental protection measures or BMPs are needed to bring an effect below the threshold of significance. Through analyses documented in this EA, NGB has determined that no significant environmental effects would result from implementing the Proposed Action. This determination is based on review and analysis of existing resource information, coordination with installation personnel, and relevant agency coordination. Since implementing the Proposed Action would result in less-than-significant adverse effects on the resources evaluated, recommendations for special procedures are unnecessary.

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Appendix A

IICEP Correspondence

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NATIONAL GUARD BUREAU
3501 FETCHET AVENUE
JOINT BASE ANDREWS 20762-5157

24 September 2021

Ms. Christine J. Yott
NEPA Program Manager
Air National Guard Readiness Center, NGB/A4AM
3501 Fetchet Avenue
Joint Base Andrews MD 20762-5157

Tammie Poitra, Regional Director
Bureau of Indian Affairs
Midwest Region Regional Office
5600 W. American Blvd., Suite 500
Bloomington MN 55347

Dear Ms. Poitra

The National Guard Bureau (NGB) is currently investigating the feasibility of implementing short-range construction, demolition, repair, and renovation projects at the Air National Guard (ANG) 132d Wing (132d WG) located at the Des Moines International Airport (DSM) in Des Moines, IA (Attachment 1). The purpose of this Proposed Action is to implement the Installation Development Plan to provide the 132d WG with the properly sized and configured facilities required to effectively accomplish their mission. The Proposed Action provides a planning, programming, and development strategy that would address current mission deficiencies and opportunities for the 132d WG. The unit would implement nine proposed short-range projects (within the next 5 years) as summarized in the 132d WG Project List (Attachment 2).

As directed by the National Environmental Policy Act (NEPA) (40 CFR § 1501.3(b)), the NGB, with support from Tetra Tech, is preparing an Environmental Assessment (EA) to evaluate the potential environmental effects associated with implementing the Proposed Action. The Area of Potential Effects (APE) (Attachment 3) for the Proposed Action is defined as any area where ground disturbance would occur; this includes the staging areas for equipment and materials. Several new project construction sites have alternative locations that will be evaluated in the upcoming EA (Attachment 2).

The EA will also provide sufficient analysis to the extent to which project-specific information on mid- to long-range projects (within the next 6 to 20 years) is available, so future NEPA analyses that tier from this EA can effectively reference the broad analyses of those improvements.

The NGB and the 132d WG are interested in any information your office could share or agency-specific preliminary comments that would alleviate or highlight areas of concern to assist us in the scoping process for this EA. Areas of concern could include potential effects on physical, ecological, social, cultural, and archaeological resources. The NGB and 132d WG also would appreciate you conveying any information your agency may have on other proposed, ongoing, or recently completed projects that could create or exacerbate impacts associated with the Proposed Action.

Please respond within 30 days of receipt either by U.S. Postal Service at Christine Yott, NEPA Program Manager, ATTN: 132d WG EA, 3501 Fetchet Avenue, Joint Base Andrews MD 20762-5157 or email at NGB.A4.A4A.NEPA.COMMENTS.Org@us.af.mil with the subject line ATTN: 132d WG EA. Thank you for your assistance.

Sincerely

YOTT.CHRISTINE.JUNE.1287505015 Digitally signed by YOTT.CHRISTINE.JUNE.1287505015 Date: 2021.10.07 12:19:30 -04'00'

CHRISTINE J. YOTT, GS-13, DAF
NEPA Program Manager

3 Attachments:
1. 132d WG Location Map, August 2021
2. 132d WG Project List, August 2021
3. 132d WG Proposed Project Locations Map, August 2021

Attachment 1: Location Map
Air National Guard 132d Wing, Des Moines, Polk County, IA

Legend
Installation Boundary

N

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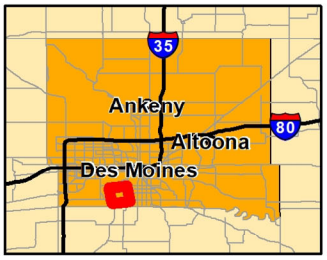
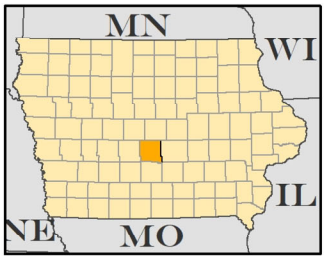
Miles



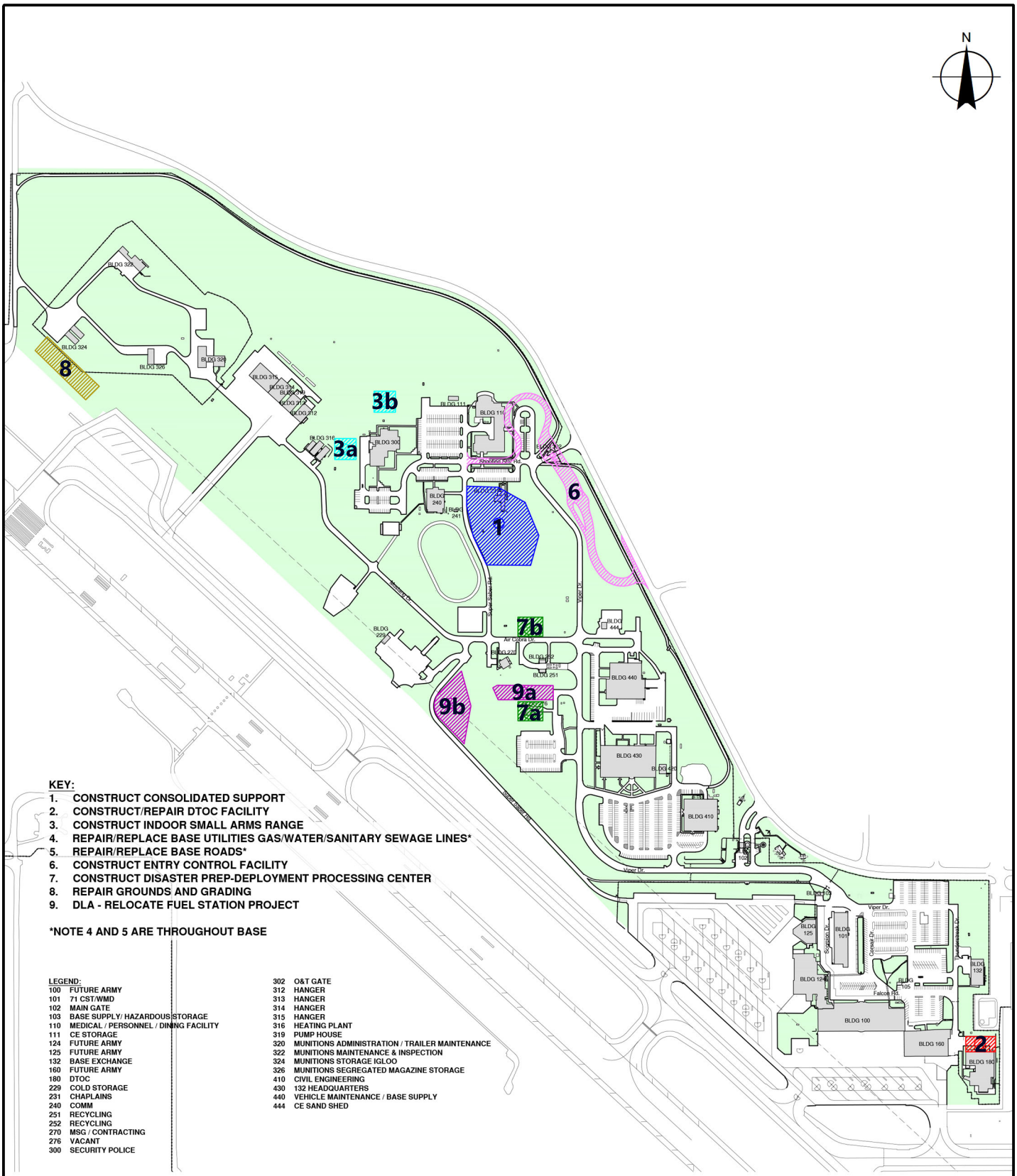


Attachment 2: 132d WG Project List

Project Number	Project Description	Project number	Fiscal Year
1	**Construct Consolidated Support Facility.** Construct a new 27,250 SF consolidated support facility in the footprint of B231 compliant with AT/FP and ANG Handbook 32-1084 requirements (See Proposed Project Locations, Site 1).	FFAN189110	2030
2	**Addition or Alteration (ADAL) of DTOC Facility.** Construct a 12,320 SF addition or alteration of existing B180. Renovate B180, reconfiguring the space to meet the unique needs of the DTOC, provide on-site storage of mission equipment, and meet AT/FP requirements (See Proposed Project Locations, Site 2).	FFAN189180/ FFAN202180	2030
3*	**Construct Indoor Small Arms Range.** Construct a 9,600 SF stand-alone 12-lane modular indoor firing range on the Des Moines ANGB (See Proposed Project Locations, Site 3a or 3b).	FFAN189301*	2030
4	**Repair/Replace Basewide Utilities (Gas, Water, Sanitary Sewage Lines).** Repair/upgrade the outdated or structurally deficient water utility lines and natural gas distribution system.	FFAN082191/ FFAN982047	2031
5	**Repair/Replace Base Roads.** Repair damaged subbase and pavements, repair, grade, and install stormwater drainage to address flooding issues, and construct new AT/FP compliant parking.	FFAN982044	2031
6	**Construct Entry Control Facility.** Construct a new main ECF off McKinley Avenue at Shooting Star Road that meets AT/FP setback requirements, UFC vehicle inspection area standards, and provides adequate access to large vehicles (See Proposed Project Locations, Site 6).	FFAN189062	2030
7	**Construct Disaster Prep-Deployment Processing Center.** Construct a new 14,600 SF combined facility for dedicated disaster preparation, deployment processing, and base gymnasium activities (See Proposed Project Locations, Site 7a or 7b).	FFAN209276	2030
8	**Repair Grounds and Grading.** Repair/regrade approximately 19,000 SF adjacent to the flight line to correct ongoing drainage washout issues (See Proposed Project Locations, Site 8).	FFAN212001	2022
9	**DLA – Relocate Fuel Station Project.** Construct a properly sized and configured vehicle fueling station to support the 132d WG's mission (See Proposed Project Locations, Site 9a or 9b).	FFAN012051/ FFAN199280/ FFAN162280	2022

* Project approval for Des Moines FY21 rescinded. This line item can be removed if CATEX #A2.3.11 can continue to be used based on proposed Mission Conversion EA at the 132 Fighter Wing, Des Moines Air National Guard Base, Des Moines, IA with FONSI dated 2015, and project #FFAN049062 as the comparable.

Attachment 3: Proposed Project Locations
Air National Guard 132d Wing, Des Moines, Polk County, IA



KEY:

1. CONSTRUCT CONSOLIDATED SUPPORT
2. CONSTRUCT/REPAIR DTOC FACILITY
3. CONSTRUCT INDOOR SMALL ARMS RANGE
4. REPAIR/REPLACE BASE UTILITIES GAS/WATER/SANITARY SEWAGE LINES*
5. REPAIR/REPLACE BASE ROADS*
6. CONSTRUCT ENTRY CONTROL FACILITY
7. CONSTRUCT DISASTER PREP-DEPLOYMENT PROCESSING CENTER
8. REPAIR GROUNDS AND GRADING
9. DLA - RELOCATE FUEL STATION PROJECT

*NOTE 4 AND 5 ARE THROUGHOUT BASE

LEGEND:

100	FUTURE ARMY
101	71 CST/WMD
102	MAIN GATE
103	BASE SUPPLY/ HAZARDOUS STORAGE
110	MEDICAL / PERSONNEL / DINING FACILITY
111	CE STORAGE
124	FUTURE ARMY
125	FUTURE ARMY
132	BASE EXCHANGE
160	FUTURE ARMY
180	DTOC
229	COLD STORAGE
231	CHAPLAINS
240	COMM
251	RECYCLING
252	RECYCLING
270	MSG / CONTRACTING
276	VACANT
300	SECURITY POLICE
302	O&T GATE
312	HANGER
313	HANGER
314	HANGER
315	HANGER
316	HEATING PLANT
319	PUMP HOUSE
320	MUNITIONS ADMINISTRATION / TRAILER MAINTENANCE
322	MUNITIONS MAINTENANCE & INSPECTION
324	MUNITIONS STORAGE IGLOO
326	MUNITIONS SEGREGATED MAGAZINE STORAGE
410	CIVIL ENGINEERING
430	132 HEADQUARTERS
440	VEHICLE MAINTENANCE / BASE SUPPLY
444	CE SAND SHED

NATIONAL GUARD BUREAU
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7 October 2021

Ms. Christine J. Yott
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Director Erin Olson-Douglas
City of Des Moines
Development Services Department
602 Robert D. Ray Drive
Des Moines IA 50309

Dear Ms. Olson-Douglas

The National Guard Bureau (NGB) is currently investigating the feasibility of implementing short-range construction, demolition, repair, and renovation projects at the Air National Guard (ANG) 132d Wing (132d WG) located at the Des Moines International Airport (DSM) in Des Moines, IA (Attachment 1). The purpose of this Proposed Action is to implement the Installation Development Plan to provide the 132d WG with the properly sized and configured facilities required to effectively accomplish their mission. The Proposed Action provides a planning, programming, and development strategy that would address current mission deficiencies and opportunities for the 132d WG. The unit would implement nine proposed short-range projects (within the next 5 years) as summarized in the 132d WG Project List (Attachment 2).

As directed by the National Environmental Policy Act (NEPA) (40 CFR § 1501.3(b)), the NGB, with support from Tetra Tech, is preparing an Environmental Assessment (EA) to evaluate the potential environmental effects associated with implementing the Proposed Action. The Area of Potential Effects (APE) (Attachment 3) for the Proposed Action is defined as any area where ground disturbance would occur; this includes the staging areas for equipment and materials. Several new project construction sites have alternative locations that will be evaluated in the upcoming EA (Attachment 2).

The EA will also provide sufficient analysis to the extent to which project-specific information on mid- to long-range projects (within the next 6 to 20 years) is available, so future NEPA analyses that tier from this EA can effectively reference the broad analyses of those improvements.

The NGB and the 132d WG are interested in any information your office could share or agency-specific preliminary comments that would alleviate or highlight areas of concern to assist us in the scoping process for this EA. Areas of concern could include potential effects on physical, ecological, social, cultural, and archaeological resources. The NGB and 132d WG also would appreciate you conveying any information your agency may have on other proposed, ongoing, or recently completed projects that could create or exacerbate impacts associated with the Proposed Action.

Please respond within 30 days of receipt either by U.S. Postal Service at Christine Yott, NEPA Program Manager, ATTN: 132d WG EA, 3501 Fetchet Avenue, Joint Base Andrews MD 20762-5157 or email at NGB.A4.A4A.NEPA.COMMENTS.Org@us.af.mil with the subject line ATTN: 132d WG EA. Thank you for your assistance.

Sincerely

CHRISTINE J. YOTT, GS-13, DAF
NEPA Program Manager

3 Attachments:
1. 132d WG Location Map, August 2021
2. 132d WG Project List, August 2021
3. 132d WG Proposed Project Locations Map, August 2021

From: Ludwig, Michael G. <MGLudwig@dmgov.org>
Sent: Wednesday, November 3, 2021 3:48 PM
To: NGB A4/A4A NEPA COMMENTS Org
Cc: Olson-Douglas, Erin; Van Essen, Jason M.; Drost, Bert A.; Lundy, Erik M.; Davis, John A.; Bryan M. Belt (DSM)
Subject: [Non-DoD Source] ATTN: 132d WG EA

Ms. Yott,

Thank you for the opportunity to comment on feasibility of short-range construction, demolition, repair and renovation projects at the Air National Guard 132d Wing located at the Des Moines International Airport in Des Moines, Iowa.

The City of Des Moines Development Services Department offers the following comments:

- Project Number 2 – Addition or Alteration (ADAL) of DTOC Facility

  This project is located in close proximity to the Des Moines International Airport control tower. The Des Moines International Airport should be notified of any proposed project at this location.

- Project Number 3 – Construct Indoor Small Arms Range

  The Development Services Department prefers project location 3a as it is located the farthest from adjoining residential uses. City staff assumes that design measures will be taken to ensure noise levels from the indoor firing range will be mitigated from surrounding residential areas and that any fired projectiles will be contained within the building. If possible, please orient the firing direction from east to west, or north to south. Finally, staff notes that similar ranges in Des Moines have required proper ventilation control to avoid lead exposure.

- Project Number 5 – Repair /Replace Base Roads and compliant parking

  Please landscape existing and proposed parking areas, drives and the ANG side of the McKinley Avenue right-of-way per the City's Landscape Standards. The Landscape Standards are Section 135-7 of the Municipal Code and can be viewed at www.plandsm.org. Trees along McKinley Avenue would need to be located subject to approval by the City of Des Moines Forestry Division and not conflict with a future 10' wide bike/trail along the ANG side of McKinley Avenue.

- Project Number 6 – Construct Entry Control Facility

  The proposed driveway location should align with Stanton Avenue or be appropriately offset to accommodate stacking for eastbound or westbound left turns by vehicles traveling in a north or south direction.

  The City's bike and trail master plan calls for a 10' wide trail along the ANG side of McKinley Avenue right-of-way. Please design the entry drive to accommodate 10' wide shelf where the trail can cross the driveway without the City having to reconstruct the driveway approach.

Please contact me if you have additional questions regarding these comments.

Respectfully,

MICHAEL LUDWIG | CITY OF DES MOINES
Deputy Director | Development Services
(515) 2 3-4810 | m: (515) 208-0401

DSM.city | 602 Robert D. Ray Drive | Des Moines, Iowa 50309

NATIONAL GUARD BUREAU
3501 FETCHET AVENUE
JOINT BASE ANDREWS 20762-5157

7 October 2021

Ms. Christine J. Yott
NEPA Program Manager
Air National Guard Readiness Center, NGB/A4AM
3501 Fetchet Avenue
Joint Base Andrews MD 20762-5157

Bryan Belt, Director of Engineering and Planning
Des Moines International Airport
Airport Operations
5800 Fleur Drive
Des Moines IA 50321

Dear Mr. Belt

The National Guard Bureau (NGB) is currently investigating the feasibility of implementing short-range construction, demolition, repair, and renovation projects at the Air National Guard (ANG) 132d Wing (132d WG) located at the Des Moines International Airport (DSM) in Des Moines, IA (Attachment 1). The purpose of this Proposed Action is to implement the Installation Development Plan to provide the 132d WG with the properly sized and configured facilities required to effectively accomplish their mission. The Proposed Action provides a planning, programming, and development strategy that would address current mission deficiencies and opportunities for the 132d WG. The unit would implement nine proposed short-range projects (within the next 5 years) as summarized in the 132d WG Project List (Attachment 2).

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CHRISTINE J. YOTT, GS-13, DAF
NEPA Program Manager

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November 5, 2021

Christine Yott
NEPA Program Manager
Attn: 132d WG EA
3501 Fetchet Avenue
Joint Base Andrews, MD 20762-5157

Dear Ms. Yott:

The following is the Des Moines Airport Authority (Authority) response to the Iowa Air National Guard Bureau's (NGB) feasibility study of implementing short-range construction, demolition, repair and renovation projects letter dated October 7, 2021. Nine projects were identified within the summary, with the Des Moines Airport Authority responding specifically to project numbers 4, 8 & 9. General response to all nine items is included as they pertain to the lease requirements.

General

Per the lease requirements, paragraph No. 8, Authority requires that the design of each project identified within the project list be presented/provided to the Authority for review and approval on an individual basis. I am certain once more clarification is provided additional questions will surface. This response letter by the Authority does not constitute a general approval for any or all projects.

Authority would like to request a clarification on the last sentence in first paragraph of letter. The unit would implement nine proposed short-range projects (within the next 5 years) as summarized in the 132d WG Project List (Attachment 2). However, within attachment 2, there is a Fiscal Year indicated with each of the projects, which extends out to 2031, giving the impression of projects for the next 10 years. Can you clarify if the dates in which each is expected to be constructed?

Project No. Specific

A. #2: Addition or Alteration (ADAL) of DTOC facility
    1) Proximity of this project is very close to the Air Traffic Control Tower (ATCT)
    2) This will need to be discussed during design and construction.
    3) ATCT staff will need to be involved in the design discussions to keep all parties on the same page.
B. #4: Repair/Replace base wide utilities (gas, water, sanitary, sewage lines)
    1) Storm
        i. Storm utilities shall be reviewed and designed to not deter existing storm piping already installed/active on the Airport campus. Depending on the affected area that the NGB project is modifying, it could affect what is being collected and drained to existing Authority storm utilities. The

amount of flow could cause the Authority's storm piping to be resized/increased in capacity.

ii. All projects and/or costs associated with design and construction of modifying Authority storm utilities will need to be reimbursed by NGB.

2) Water

i. With upgrading the water mains feeding the base, NGB needs to review installing master meter pits at each entry point. This was discussed with CE of the base back in 2019.

ii. Attached email and details for reference.

C. #8: Repair Grounds and Grading

1) Area called out to be graded needs to be clarified.
2) All work within the area is to be constructed and maintained to not create a wetland in the future.

D. #9: DLA Relocate Fuel Station project

1) NPDES permit associated with fueling operations

i. Need to clarify that the existing NPDES permit will be associated with the operations, or a new NPDES permit will be established with Iowa Department of Natural Resources.

ii. Believe that once previous fueling operations and tanks were removed from the leasehold, that the NPDES permit was eliminated as well.

2) Location 9b

i. This location is too close to our Taxiway Delta. Preference is location 9a.

ii. Authority is requiring that all new fuel storage systems are above ground. No underground storage.

I look forward to reviewing your more detailed plans as they are developed. As plans are designed, if you have any questions or concerns, please feel free to contact me at 515-256-5100.

Sincerely,

Kevin J. Foley
Executive Director

Cc: Bryan Belt, Director of Engineering & Planning
Clint Torp, Director of Operations
Brian Mulcahy, Director of Finance

Belt, Bryan M.

From: Devens, Robert J Lt Col USAF 132 MSG (USA) <robert.j.devens2.mil@mail.mil>
Sent: Thursday, May 23, 2019 8:03 AM
To: Belt, Bryan M.
Cc: Shepherd, Jonathan D Capt USAF 132 MSG (USA); Steffes, Cole M.
Subject: Re: [Non-DoD Source] Airport - DMWW discussions on backflow valves/master meter pits

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: IANG

1:30 works, see you then. Have a great weekend!

Sent from my iPhone

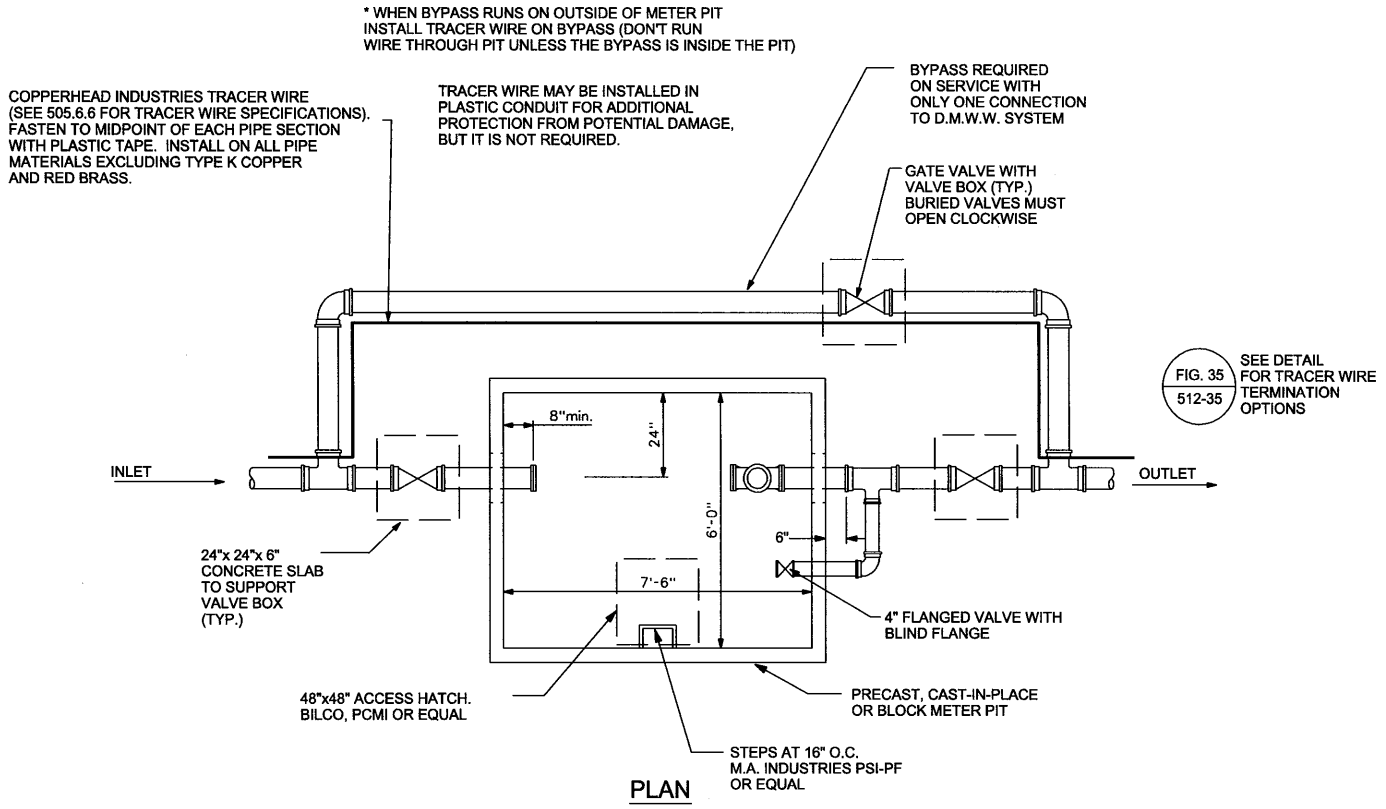
On May 23, 2019, at 7:50 AM, Belt, Bryan M. <BMBelt@dsmairport.com> wrote:

> All active links contained in this email were disabled. Please verify the identity of the sender, and confirm the authenticity of all links contained within the message prior to copying and pasting the address to a Web browser.
>
> ---
>
> Col
> I am. What time would you like to meet? Say 1:30 at your facility. Need to get Cole introduced to your layout, as well as your staff.
> Thanks
>
> **From:** Devens, Robert J Lt Col USAF 132 MSG (USA) <robert.j.devens2.mil@mail.mil>
> **Sent:** Wednesday, May 22, 2019 3:32 PM
> **To:** Belt, Bryan M. <BMBelt@dsmairport.com>
> **Cc:** Shepherd, Jonathan D Capt USAF 132 MSG (USA) <jonathan.d.shepherd2.mil@mail.mil>; Steffes, Cole M. <cmsteffes@dsmairport.com>
> **Subject:** RE: [Non-DoD Source] Airport - DMWW discussions on backflow valves/master meter pits
> Bryan:
> Yes, let's discuss. We will be available after June 10. Are you free the afternoon of June 11?
> Bob
> ROBERT J. DEVENS, Lt Col, Iowa ANG
> Commander, 132D CES
> 3100 McKinley Avenue
> Des Moines, IA 50321-2799
> DSN 261-8700 COMM 515-261-8700
> Fax 261-8756 CELL 515-802-8286
> email: robert.j.devens2.mil@mail.mil < Caution-http://BMBelt@dsmairport.com/ >
> **From:** Belt, Bryan M. <BMBelt@dsmairport.com < Caution-mailto:BMBelt@dsmairport.com > >
> **Sent:** Tuesday, May 21, 2019 11:16 PM
> **To:** Devens, Robert J Lt Col USAF 132 MSG (USA) <robert.j.devens2.mil@mail.mil < Caution-mailto:robert.j.devens2.mil@mail.mil > >

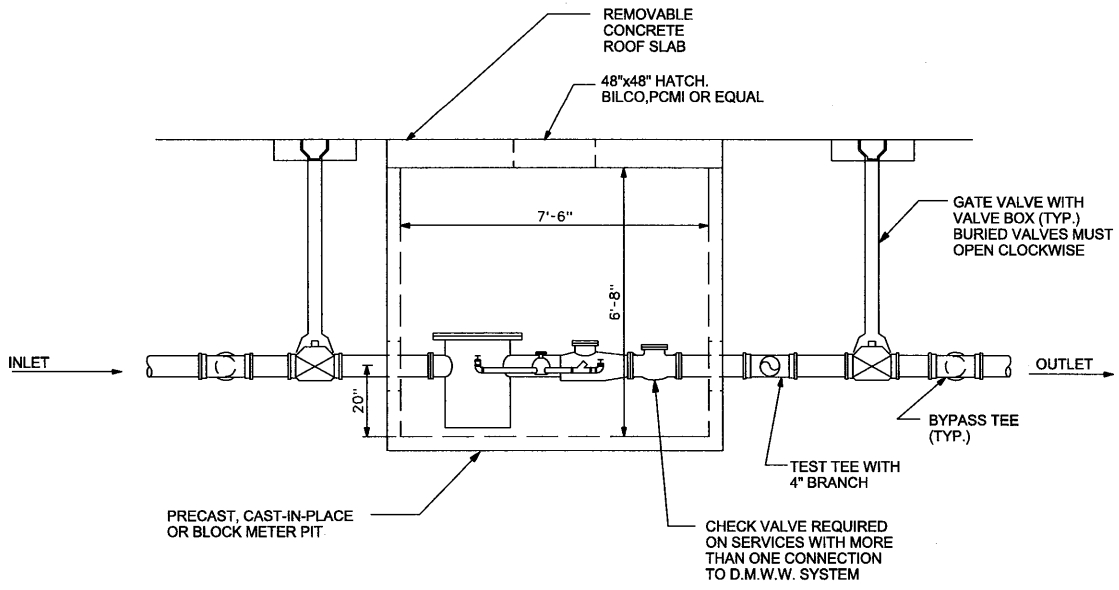
Cc: Shepherd, Jonathan D Capt USAF 132 MSG (USA) <jonathan.d.shepherd2.mil@mail.mil < Caution-mailto:jonathan.d.shepherd2.mil@mail.mil > >; Steffes, Cole M. <cmsteffes@dsmairport.com < Caution-mailto:cmsteffes@dsmairport.com > >
Subject: [Non-DoD Source] Airport - DMWW discussions on backflow valves/master meter pits
All active links contained in this email were disabled. Please verify the identity of the sender, and confirm the authenticity of all links contained within the message prior to copying and pasting the address to a Web browser.

Col Devens
I briefly discussed the following at a promotion party a few months back. DMWW has engages the Airport to ensure the quality of water entering and leaving the Airport campus. With this, they have requested that backflow/check valves we installed at all points of water lines entering the Campus. Airport is fine with this. Only item that still needs to be followed with this is each project must be ran thru the PDC and DMWW review, which the Airport is fine with as well.
If this review process would like to be skipped/removed, DMWW is allowing to approve a master meter pit to be installed as well. This would allow ANG the ability to modify water lines without proceeding/going to DMWW for review & approval.
Hoping that we can sit down and discuss.
Thanks

<image011.png><caution-Caution- <image014.png><tel:515.256.5160> <image016.png><tel:515.897.9724>
http://BMBelt@dsmairport.com/>



PLAN



SECTION

Des Moines Water Works
Water You Can Trust for Life
ENGINEERING DEPARTMENT
Des Moines, Iowa

FIRE SERVICE METER PIT DETAIL W/TRACER WIRE

SCALE: NONE	DATE: 5-10-1996
DRAWN BY: DLH	APPROVED BY: TPC
REVISED: 09/18/2018 JLH	

NATIONAL GUARD BUREAU
3501 FETCHET AVENUE
JOINT BASE ANDREWS 20762-5157

7 October 2021

Ms. Christine J. Yott
NEPA Program Manager
Air National Guard Readiness Center, NGB/A4AM
3501 Fetchet Avenue
Joint Base Andrews MD 20762-5157

Regional Administrator Joseph Miniace
FAA - Central Region
901 Locust Street
Kansas City MO 64106-2641

Dear Mr. Miniace

The National Guard Bureau (NGB) is currently investigating the feasibility of implementing short-range construction, demolition, repair, and renovation projects at the Air National Guard (ANG) 132d Wing (132d WG) located at the Des Moines International Airport (DSM) in Des Moines, IA (Attachment 1). The purpose of this Proposed Action is to implement the Installation Development Plan to provide the 132d WG with the properly sized and configured facilities required to effectively accomplish their mission. The Proposed Action provides a planning, programming, and development strategy that would address current mission deficiencies and opportunities for the 132d WG. The unit would implement nine proposed short-range projects (within the next 5 years) as summarized in the 132d WG Project List (Attachment 2).

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Sincerely

CHRISTINE J. YOTT, GS-13, DAF
NEPA Program Manager

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U.S. Department
of Transportation

**Federal Aviation
Administration**

Central Region
Iowa, Kansas,
Missouri, Nebraska

901 Locust
Kansas City, Missouri 64106

November 30, 2021

Ms. Christine J. Yott
NEPA Program Manager
Air National Guard Readiness Center, NGB/A4AM
3501 Fetchet Avenue
Joint Base Andrews, MD 20762-5157

Dear Ms. Yott:

We have received the National Guard Bureau's correspondence dated October 7, 2021, regarding their current investigation into the feasibility of implementing short-range construction, demolition, repair, and renovation projects at the Air National Guard (ANG) 132d Wing (132d WG) located at the Des Moines International Airport (DSM) in Des Moines, Iowa (Attachment 1). According to the correspondence, the purpose of this Proposed Action is to implement the Installation Development Plan to provide the 132d WG with the properly sized and configured facilities required to effectively accomplish their mission. The Proposed Action provides a planning, programming, and development strategy that would address current mission deficiencies and opportunities for the 132d WG. The unit would implement nine proposed short-range projects (within the next 5 years) as summarized in the 132d WG Project List (Attachment 2).

Your correspondence indicated that several new project construction sites have alternative locations that will be evaluated in the upcoming Environmental Assessment (EA), which will be completed by the NGB, with support from Tetra Tech. (Attachment 2) We generally do not provide comments from an environmental standpoint.

Your facility is located on land owned by the DSM and your projects will require formal notice and review for airspace review under Federal Aviation Regulation (FAR) Part 77, Objects Affecting Navigable Airspace. When submitting an airspace analysis, we recommend a 120-day minimum notification to accommodate the review process and issue our determination letter. Airspace Analyses must be submitted through the website: http://oeaaa.faa.gov.

Please continue to coordinate your projects with the Des Moines Airport Authority. We hope this adequately addresses your concerns.

Joseph N. Miniace
Regional Administrator

cc: ACE-600

NATIONAL GUARD BUREAU
3501 FETCHET AVENUE
JOINT BASE ANDREWS 20762-5157

7 October 2021

Ms. Christine J. Yott
NEPA Program Manager
Air National Guard Readiness Center, NGB/A4AM
3501 Fetchet Avenue
Joint Base Andrews MD 20762-5157

Brain Hutchins, Air Quality Compliance Supervisor
Air Quality Bureau of Environmental Protection Division
Iowa Department of Natural Resources
502 E. 9th Street
Des Moines IA 50319-0034

Dear Mr. Hutchins

The National Guard Bureau (NGB) is currently investigating the feasibility of implementing short-range construction, demolition, repair, and renovation projects at the Air National Guard (ANG) 132d Wing (132d WG) located at the Des Moines International Airport (DSM) in Des Moines, IA (Attachment 1). The purpose of this Proposed Action is to implement the Installation Development Plan to provide the 132d WG with the properly sized and configured facilities required to effectively accomplish their mission. The Proposed Action provides a planning, programming, and development strategy that would address current mission deficiencies and opportunities for the 132d WG. The unit would implement nine proposed short-range projects (within the next 5 years) as summarized in the 132d WG Project List (Attachment 2).

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NEPA Program Manager

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October 20, 2021

Transmitted via email

Christine Yott, NEPA Program Manager
ATTN: 132d WG EA
3501 Fetchet Avenue
Joint Base Andrews, MD 20762-5157
Clive, IA 50325

Re: Environmental Assessment – Des Moines International Airport, Polk County, Iowa

Dear Ms. Yott:

The Iowa Department of Natural Resources (Iowa DNR) received your letter dated October 7, 2021, requesting that Iowa DNR provide comments on an Environmental Assessment (EA) of potential impacts from proposed action at the Des Moines Municipal Airport including short-range construction, demolition, repair, and renovation at the Air National Guard (ANG) 132d Wind located at the Des Moines International Airport. The comments below address air quality requirements only.

Polk County Public Works is the delegated permitting and enforcement authority for most air quality requirements within Polk County. This includes issuing air construction and operating permits, issuing open burning permits, and conducting fugitive dust enforcement. Based on the description of the proposed project, it may be subject to Polk County ordinances regarding the air quality requirements noted above. If you have not already done so, please provide a copy of the draft EA to Mr. Jeremy Becker, Program Manager, Polk County Public Works Air Quality Division, 5885 NE 14th Street, Des Moines, IA 50313, for his review. Mr. Becker may also be reached by email at jeremy.becker@polkcountyiowa.gov. (I have copied Mr. Becker on this transmittal.)

Asbestos
Building renovations, demolitions and training fires are potentially subject to the asbestos release prevention efforts under the National Emission Standards for Hazardous Air Pollutants (NESHAP) for asbestos [40 Code of Federal Regulations (CFR) Part 61, Subpart M]. The DNR has been delegated the authority to administer and enforce this program.

The asbestos NESHAP rules apply before renovation or demolition begin, and often require a thorough inspection and lab analysis of suspect asbestos containing material, notification to the DNR and, in some cases, proper removal and disposal. For more information, please visit our website at http://www.iowadnr.gov/asbestos. You may also contact the Iowa DNR's Asbestos NESHAP Coordinator, Tom Wuehr, at 515-424-8212 or by email at tom.wuehr@dnr.iowa.gov. (I have copied Mr. Wuehr on this transmittal.) Additionally, Polk County Public Works requires a permit for all training fire demolitions (see contact information above).

If you have any questions, please contact me by e-mail at christine.paulson@dnr.iowa.gov or by phone at (515) 725-9510.

Sincerely,

Christine M. Paulson

Christine Paulson
Senior Environmental Specialist
Air Quality Bureau

NATIONAL GUARD BUREAU
3501 FETCHET AVENUE
JOINT BASE ANDREWS 20762-5157

7 October2021

Ms. Christine J. Yott
NEPA Program Manager
Air National Guard Readiness Center, NGB/A4AM
3501 Fetchet Avenue
Joint Base Andrews MD 20762-5157

Ted Petersen, Supervisor
Iowa Department of Natural Resources
Field Office #5
502 E. 9th Street
Des Moines IA 50319-0034

Dear Mr. Petersen

The National Guard Bureau (NGB) is currently investigating the feasibility of implementing short-range construction, demolition, repair, and renovation projects at the Air National Guard (ANG) 132d Wing (132d WG) located at the Des Moines International Airport (DSM) in Des Moines, IA (Attachment 1). The purpose of this Proposed Action is to implement the Installation Development Plan to provide the 132d WG with the properly sized and configured facilities required to effectively accomplish their mission. The Proposed Action provides a planning, programming, and development strategy that would address current mission deficiencies and opportunities for the 132d WG. The unit would implement nine proposed short-range projects (within the next 5 years) as summarized in the 132d WG Project List (Attachment 2).

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NATIONAL GUARD BUREAU
3501 FETCHET AVENUE
JOINT BASE ANDREWS 20762-5157

7 October 2021

Ms. Christine J. Yott
NEPA Program Manager
Air National Guard Readiness Center, NGB/A4AM
3501 Fetchet Avenue
Joint Base Andrews MD 20762-5157

Jeremy Becker, Air Quality Manager
Polk County Public Works Air Quality Department
5885 NE 14th Street
Des Moines IA 50313

Dear Mr. Becker

The National Guard Bureau (NGB) is currently investigating the feasibility of implementing short-range construction, demolition, repair, and renovation projects at the Air National Guard (ANG) 132d Wing (132d WG) located at the Des Moines International Airport (DSM) in Des Moines, IA (Attachment 1). The purpose of this Proposed Action is to implement the Installation Development Plan to provide the 132d WG with the properly sized and configured facilities required to effectively accomplish their mission. The Proposed Action provides a planning, programming, and development strategy that would address current mission deficiencies and opportunities for the 132d WG. The unit would implement nine proposed short-range projects (within the next 5 years) as summarized in the 132d WG Project List (Attachment 2).

As directed by the National Environmental Policy Act (NEPA) (40 CFR § 1501.3(b)), the NGB, with support from Tetra Tech, is preparing an Environmental Assessment (EA) to evaluate the potential environmental effects associated with implementing the Proposed Action. The Area of Potential Effects (APE) (Attachment 3) for the Proposed Action is defined as any area where ground disturbance would occur; this includes the staging areas for equipment and materials. Several new project construction sites have alternative locations that will be evaluated in the upcoming EA (Attachment 2).

The EA will also provide sufficient analysis to the extent to which project-specific information on mid- to long-range projects (within the next 6 to 20 years) is available, so future NEPA analyses that tier from this EA can effectively reference the broad analyses of those improvements.

The NGB and the 132d WG are interested in any information your office could share or agency-specific preliminary comments that would alleviate or highlight areas of concern

to assist us in the scoping process for this EA. Areas of concern could include potential effects on physical, ecological, social, cultural, and archaeological resources. The NGB and 132d WG also would appreciate you conveying any information your agency may have on other proposed, ongoing, or recently completed projects that could create or exacerbate impacts associated with the Proposed Action.

Please respond within 30 days of receipt either by U.S. Postal Service at Christine Yott, NEPA Program Manager, ATTN: 132d WG EA, 3501 Fetchet Avenue, Joint Base Andrews MD 20762-5157 or email at NGB.A4.A4A.NEPA.COMMENTS.Org@us.af.mil with the subject line ATTN: 132d WG EA. Thank you for your assistance.

Sincerely

CHRISTINE J. YOTT, GS-13, DAF
NEPA Program Manager

3 Attachments:
1. 132d WG Location Map, August 2021
2. 132d WG Project List, August 2021
3. 132d WG Proposed Project Locations Map, August 2021

NATIONAL GUARD BUREAU
3501 FETCHET AVENUE
JOINT BASE ANDREWS 20762-5157

7 October 2021

Ms. Christine J. Yott
NEPA Program Manager
Air National Guard Readiness Center, NGB/A4AM
3501 Fetchet Avenue
Joint Base Andrews MD 20762-5157

Jodi Creswell, Environmental Planning Branch Chief
U.S. Army Corps of Engineers, Rock Island
Clock Tower Building
1500 Rock Island Drive
Rock Island IL 61201

Dear Ms. Creswell

The National Guard Bureau (NGB) is currently investigating the feasibility of implementing short-range construction, demolition, repair, and renovation projects at the Air National Guard (ANG) 132d Wing (132d WG) located at the Des Moines International Airport (DSM) in Des Moines, IA (Attachment 1). The purpose of this Proposed Action is to implement the Installation Development Plan to provide the 132d WG with the properly sized and configured facilities required to effectively accomplish their mission. The Proposed Action provides a planning, programming, and development strategy that would address current mission deficiencies and opportunities for the 132d WG. The unit would implement nine proposed short-range projects (within the next 5 years) as summarized in the 132d WG Project List (Attachment 2).

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Sincerely

CHRISTINE J. YOTT, GS-13, DAF
NEPA Program Manager

3 Attachments:
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2. 132d WG Project List, August 2021
3. 132d WG Proposed Project Locations Map, August 2021

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS - ROCK ISLAND DISTRICT
CLOCK TOWER BUILDING - PO BOX 2004
ROCK ISLAND, ILLINOIS 61204-2004

November 18, 2021

Ms. Christine J. Yott
NEPA Program Manager
Air National Guard Readiness Center, NGB/A4AM
3501 Fetcher Avenue
Joint Base Andrews MD 20762-5157

Dear: Ms. Yott:

I received your letter dated October 7, 2021, concerning feasibility of implementing short-range construction, demolition, repair, and renovation projects at the Air National Guard 132d Wing located at the Des Moines International Airport in Des Moines, Iowa. The US Army Corps of Engineers, Rock Island District (District) staff reviewed the information you provided and have the following comments:

Your proposal does not involve District administered land; therefore, no further District real estate coordination is necessary.

Any proposed placement of dredged or fill material into waters of the United States (including jurisdictional wetlands) requires Department of the Army authorization under Section 404 of the Clean Water Act. We require additional details of your project before we can make a final determination of permit requirements. When detailed plans are available, please complete and submit an application packet to the Rock Island District for processing. The application should include determinations of wetlands and other waters of the United States, size estimations of impacts to those areas, and wetland types and relative functions.

If you have any questions regarding permitting requirements under Section 404 of the Clean Water Act, please contact Mr. Sean Dillard, Regulatory Biologist at the Des Moines Field Office, Rock Island District. You may reach Mr. Dillard by email at Sean.M.Dillard@usace.army.mil or by telephoning 309/794-5379.

The Responsible Agency should coordinate with the Iowa Historic Preservation Agency, ATTN: Review and Compliance Coordinator, State Historical Society of Iowa, 600 East Locust, State Historic Building, Des Moines, IA, 50319 to determine impacts to historic properties.

The Rock Island Field Office of the U.S. Fish and Wildlife Service should be contacted to determine if any federally listed endangered species are being impacted and, if so, how to avoid or minimize impacts. The Illinois & Iowa ES Field Office address

is: 1511 47th Avenue, Moline, IL 61265. Mr. Kraig McPeek is the Filed Office Supervisor. You can reach him by calling 309/757-5800.

The Iowa Emergency Management Division should be contacted to determine if the proposed project may impact areas designated as floodway. Ms. Aimee Bartlett is the Iowa State Hazard Mitigation Bureau Chief. Her address is: 7900 Hickman Rd., Suite 500, Windsor Heights, IA 50324. You can reach her by calling 515/725-3231.

No other concerns surfaced during our review. Thank you for the opportunity to comment on your proposal. If you need more information, please call Ms. Kelsey Hoffmann of our Environmental Compliance Branch, telephone 309/794-5319.

You may find additional information about the Corps' Rock Island District on our website at **http://www.mvr.usace.army.mil**. To find out about other Districts within the Corps, you may visit: **http://www.usace.army.mil/Locations.aspx**.

Sincerely,

for: Jodi K. Creswell
Chief, Environmental Planning Branch

NATIONAL GUARD BUREAU
3501 FETCHET AVENUE
JOINT BASE ANDREWS 20762-5157

7 October 2021

Ms. Christine J. Yott
NEPA Program Manager
Air National Guard Readiness Center, NGB/A4AM
3501 Fetchet Avenue
Joint Base Andrews MD 20762-5157

Joshua Tapp, NEPA Program Director
U.S. Environmental Protection Agency, Region 7
Environmental Services Division
11201 Renner Blvd
Lenexa KS 66219

Dear Mr. Tapp

The National Guard Bureau (NGB) is currently investigating the feasibility of implementing short-range construction, demolition, repair, and renovation projects at the Air National Guard (ANG) 132d Wing (132d WG) located at the Des Moines International Airport (DSM) in Des Moines, IA (Attachment 1). The purpose of this Proposed Action is to implement the Installation Development Plan to provide the 132d WG with the properly sized and configured facilities required to effectively accomplish their mission. The Proposed Action provides a planning, programming, and development strategy that would address current mission deficiencies and opportunities for the 132d WG. The unit would implement nine proposed short-range projects (within the next 5 years) as summarized in the 132d WG Project List (Attachment 2).

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The NGB and the 132d WG are interested in any information your office could share or agency-specific preliminary comments that would alleviate or highlight areas of concern to assist us in the scoping process for this EA. Areas of concern could include potential effects on physical, ecological, social, cultural, and archaeological resources. The NGB and 132d WG also would appreciate you conveying any information your agency may have on other proposed, ongoing, or recently completed projects that could create or exacerbate impacts associated with the Proposed Action.

Please respond within 30 days of receipt either by U.S. Postal Service at Christine Yott, NEPA Program Manager, ATTN: 132d WG EA, 3501 Fetchet Avenue, Joint Base Andrews MD 20762-5157 or email at NGB.A4.A4A.NEPA.COMMENTS.Org@us.af.mil with the subject line ATTN: 132d WG EA. Thank you for your assistance.

Sincerely

CHRISTINE J. YOTT, GS-13, DAF
NEPA Program Manager

3 Attachments:
1. 132d WG Location Map, August 2021
2. 132d WG Project List, August 2021
3. 132d WG Proposed Project Locations Map, August 2021

From: Summerlin, Joe <summerlin.joe@epa.gov>
Sent: Thursday, November 4, 2021 10:46 AM
To: NGB A4/A4A NEPA COMMENTS Org
Subject: [Non-DoD Source] Des Moines ANG Airbase 132d Airwing Base Improvements Scoping

To Whom it May Concern:

Thank you for contacting the US Environmental Protection Agency about the Des Moines ANG Airbase Improvements Project. EPA has conducted a cursory NEPA review of the area using NEPAssist to locate any potential hazardous waste sites and other environmental concerns located near the proposed project area. Although NEPAssist does not show any areas of concern, please contact the state and city to determine if there may be other issues that may not be listed in NEPAssist.

Also, please coordinate with the city and county to ensure that the drinking water and wastewater facilities have capacity for any increased inputs/outputs from your proposed facilities.

If you have any questions, please contact me at (913) 551-7029 or via email at summerlin.joe@epa.gov.

Sincerely,

Joe Summerlin
NEPA Team Leader
Office of Intergovernmental Affairs
EPA Region 7

NATIONAL GUARD BUREAU
3501 FETCHET AVENUE
JOINT BASE ANDREWS 20762-5157

7 October 2021

Ms. Christine J. Yott
NEPA Program Manager
Air National Guard Readiness Center, NGB/A4AM
3501 Fetchet Avenue
Joint Base Andrews MD 20762-5157

Ed Meendering, Manager
U.S. Fish & Wildlife Service
Iowa Wetlands Management District
1710 360th Street
Titonka IA 50480-7086

Dear Mr. Meendering

The National Guard Bureau (NGB) is currently investigating the feasibility of implementing short-range construction, demolition, repair, and renovation projects at the Air National Guard (ANG) 132d Wing (132d WG) located at the Des Moines International Airport (DSM) in Des Moines, IA (Attachment 1). The purpose of this Proposed Action is to implement the Installation Development Plan to provide the 132d WG with the properly sized and configured facilities required to effectively accomplish their mission. The Proposed Action provides a planning, programming, and development strategy that would address current mission deficiencies and opportunities for the 132d WG. The unit would implement nine proposed short-range projects (within the next 5 years) as summarized in the 132d WG Project List (Attachment 2).

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Sincerely

CHRISTINE J. YOTT, GS-13, DAF
NEPA Program Manager

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NATIONAL GUARD BUREAU
3501 FETCHET AVENUE
JOINT BASE ANDREWS 20762-5157

7 October 2021

Ms. Christine J. Yott
NEPA Program Manager
Air National Guard Readiness Center, NGB/A4AM
3501 Fetchet Avenue
Joint Base Andrews MD 20762-5157

Kraig McPeek
U.S. Fish & Wildlife Service
Illinois-Iowa ES Field Office
1511 47th Avenue
Moline IL 61625

Dear Mr. McPeek

The National Guard Bureau (NGB) is currently investigating the feasibility of implementing short-range construction, demolition, repair, and renovation projects at the Air National Guard (ANG) 132d Wing (132d WG) located at the Des Moines International Airport (DSM) in Des Moines, IA (Attachment 1). The purpose of this Proposed Action is to implement the Installation Development Plan to provide the 132d WG with the properly sized and configured facilities required to effectively accomplish their mission. The Proposed Action provides a planning, programming, and development strategy that would address current mission deficiencies and opportunities for the 132d WG. The unit would implement nine proposed short-range projects (within the next 5 years) as summarized in the 132d WG Project List (Attachment 2).

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Sincerely

CHRISTINE J. YOTT, GS-13, DAF
NEPA Program Manager

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2. 132d WG Project List, August 2021
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From: McPeek, Kraig <kraig_mcpeek@fws.gov>
Sent: Thursday, October 21, 2021 12:30 PM
To: NGB A4/A4A NEPA COMMENTS Org
Subject: [Non-DoD Source] Re: [EXTERNAL] Scoping Letter for Des Moines ANG Base

Hello - thank you for coordinating with our office. The USFWS has no concerns or comments related to this project. Thank you

Kraig McPeek
Field Office Supervisor

US Fish and Wildlife Service
Illinois & Iowa ES Field Office
1511 47th Avenue
Moline, IL 61265

office - 309-757-5800 x202
cell - 309-429-0362

Do the best you can until you know better. Then when you know better, do better - Maya Angelou
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From: NGB A4/A4A NEPA COMMENTS Org <NGB.A4.A4A.NEPA.COMMENTS.Org@us.af.mil>
Sent: Monday, October 18, 2021 1:45 PM
To: McPeek, Kraig <kraig_mcpeek@fws.gov>
Subject: [EXTERNAL] Scoping Letter for Des Moines ANG Base

Good Afternoon,

The Air National Guard is seeking information or preliminary concerns regarding projects associated with an upcoming Environmental Assessment at our base in Des Moines, IA. Please see the attachments for more information.

Respectfully,

CHRISTINE J YOTT, M.S., GS-13, DAF
NGB/A4AM Plans and Requirements
Physical Scientist (Environmental)
Air National Guard Readiness Center
3501 Fetchet Ave, Joint Base Andrews, MD 20762

NATIONAL GUARD BUREAU
3501 FETCHET AVENUE
JOINT BASE ANDREWS 20762-5157

11 October 2021

Ms Jennifer Harty
Cultural Resources Program Manager (A4VN)
3501 Fetchet Ave
Joint Base Andrews MD 20762

Susan Kloewer, SHPO
Administrator, State Historical Society of Iowa
Iowa Department of Cultural Affairs
State Historical Building
600 East Locust Street
Des Moines IA 50319

Dear Ms Kloewer

The National Guard Bureau (NGB) is currently investigating the feasibility of implementing short-range infrastructure construction, demolition, and renovation projects at the 132d Wing (132 WG) of the Air National Guard (ANG) on the ANG base at the Des Moines International Airport (DSM) in Des Moines, IA (Attachment 1). The purpose of implementing these projects from the Installation Development Plan (the Proposed Action) is to provide the 132 WG with the properly sized and configured facilities required to effectively accomplish their mission. The Proposed Action provides a planning, programming, and development strategy that would address current mission deficiencies and opportunities for the 132 WG. The unit proposes nine infrastructure projects as summarized in the 132 WG Project List (Attachment 2).

As directed by the National Environmental Policy Act (NEPA) (40 CFR § 1501.3(b)), the NGB, with support from Tetra Tech, is preparing an Environmental Assessment (EA) to evaluate the potential environmental effects associated with implementing the Proposed Action. The Area of Potential Effects (APE) (Attachment 3) for the Proposed Action is defined as any area where effects to NRHP eligible properties might occur, principally ground disturbance or visual effects, including staging areas for equipment and materials. The purpose of this letter is to initiate consultation under Section 106 of the National Historic Preservation Act (NHPA) (36 CFR § 800) on the proposed projects in support of the NEPA analysis.

The EA will also provide analysis for the mid- to long-range projects (within the next 6–20 years) to the extent project specific information is currently available. As projects change or more information becomes available, future NEPA analyses can tier from this EA referencing its broad analysis to address those changes.

Two prior cultural resource studies, which partially overlap the current APE, were conducted on the ANG base. In 1996, a survey of archaeological and historic resources was conducted for two undeveloped parcels adjacent to DSM (Anderson 1996). The combined

total of the parcel to the north (34.9 acres) and the parcel to the east (34.5 acres) was 69.4 acres. No archaeological or historic resources were identified in the survey area. The Iowa State Historic Preservation Officer provided no feedback on the survey report within the 30-day comment period and, thus, concurred by default on February 25, 1999.

The second cultural resources study was conducted in 2002 and included a pedestrian inventory, and limited shovel testing along the northern side of the main runway and shovel testing at several small, non-contiguous areas adjacent to the northern perimeter of the ANGB totaling 22.5 acres (e^2M 2003). The archaeological survey portion of the study identified no archaeological resources and recommended no additional archaeological work. There is no record of SHPO concurrence in the 2007 ICRMP, the 2020 ICRMPs or the 2003 cultural landscape report.

The historic resources portion of the study identified 36 extant buildings, of which 24 were constructed between 1941 and 1989 and were subject to evaluation (e^2M 2003). Three of the 24 structures evaluated were 50 years or older in 2003 and were assessed for eligibility for inclusion in the National Register of Historic Places (NRHP). Only one of the structures, the hangar (Building 100), was determined eligible for inclusion in the NRHP. The remaining 21 structures were evaluated under Criterion Consideration G (36 CFR § 60.4) for possible association with the Cold War, and found to be not eligible for inclusion in the NRHP under Criterion Consideration G. The report stated that no additional cultural landscape evaluation work was required at the time; however, it recommended structures be reevaluated once they reach 50 years of age (e^2M 2003). Currently, Buildings 103, 107, 110, 228, 231, 312, 313, 314, 315, 316, 410, and 430 have reached 50 years of age.

The results of these two surveys are summarized in the base's current Integrated Cultural Resources Management Plan (ICRMP). The ICRMP states:

> *The base has one built resource that is eligible for listing to the NRHP, Building 100, the base's wing headquarters and aircraft maintenance hangar. All buildings constructed prior to 1990 have been evaluated for their NRHP eligibility in two cultural resource surveys (Anderson 1996, e²M 2003). No other NRHP eligible resources were identified. Therefore, the base is considered to be low probability for additional built resources to be eligible for listing to the NRHP (pg. 25).*

The NRHP-eligible hangar, Building 100, is not within the APE of any of the nine proposed projects (Attachment 3).

Because Building 100 will not be affected by any of the proposed projects in the project list, and because all ground disturbance will occur in areas previously surveyed for cultural resources or within areas of previous disturbance that extends beyond the proposed effects, the NGB has reached a determination of no historic properties affected for the proposed undertaking.

The 132 WG and NGB invite your comments on our proposed undertakings. In addition to your office, NGB is consulting with federally recognized tribes who may have current or historical interests in the area.

Please provide comments to Jennifer Harty, Cultural Resources Program Manager (A4), 3501 Fetchet Avenue, Joint Base Andrew MD 20762-5157 or by email at NGB.A4.A4A.NEPA.COMMENTS.Org@us.af.mil with the subject line ATTN: 132 WG EA. Thank you for your assistance.

Sincerely

JENNIFER L. HARTY, GS-13, DAF
Cultural Resources Program Manager

6 Attachments:
1. 132 WG Location Map, September 2021
2. 132 WG Project List, September 2021
3. 132 WG Proposed Project Locations Map, September 2021
4. 132 WG Previously Recorded Archeological Sites, September 2021
5. 132 WG Previously Recorded Archaeological Surveys, September 2021
6. 132 WG Previously Recorded Sites and Previous Surveys Table, September 2021

Available upon request:
1. *Cultural and Historical Survey of Iowa Air National Guard Base, Polk County, Des Moines, Iowa*, 1996
2. *Final Report Cultural Landscape Evaluation, Des Moines Air National Guard Base, Des Moines, Iowa*, 2003
3. ICRMP Des Moines Air National Guard Station 2020-2025

References:

Anderson, R.W., Jr.1996. *Cultural and Historical Survey of Iowa Air National Guard Base, Polk County, Des Moines, Iowa*. Prepared for Air National Guard by Center for Environmental Restoration Systems, Argonne, IL.

e²M (engineering-environmental Management, Inc.) 2003. *Final Report Cultural Landscape Evaluation, Des Moines Air National Guard Base, Des Moines, Iowa*. Prepared for Air National Guard by engineering-environmental Management, Inc., Littleton, CO.

Attachment 1: Location Map
Air National Guard 132d Wing, Des Moines, Polk County, IA

Legend
Installation Boundary

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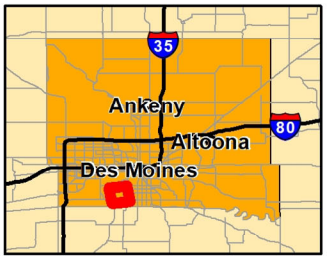
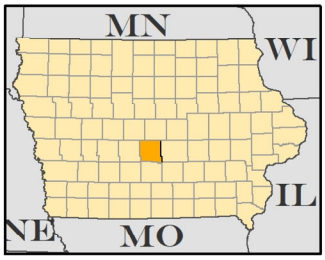
Miles



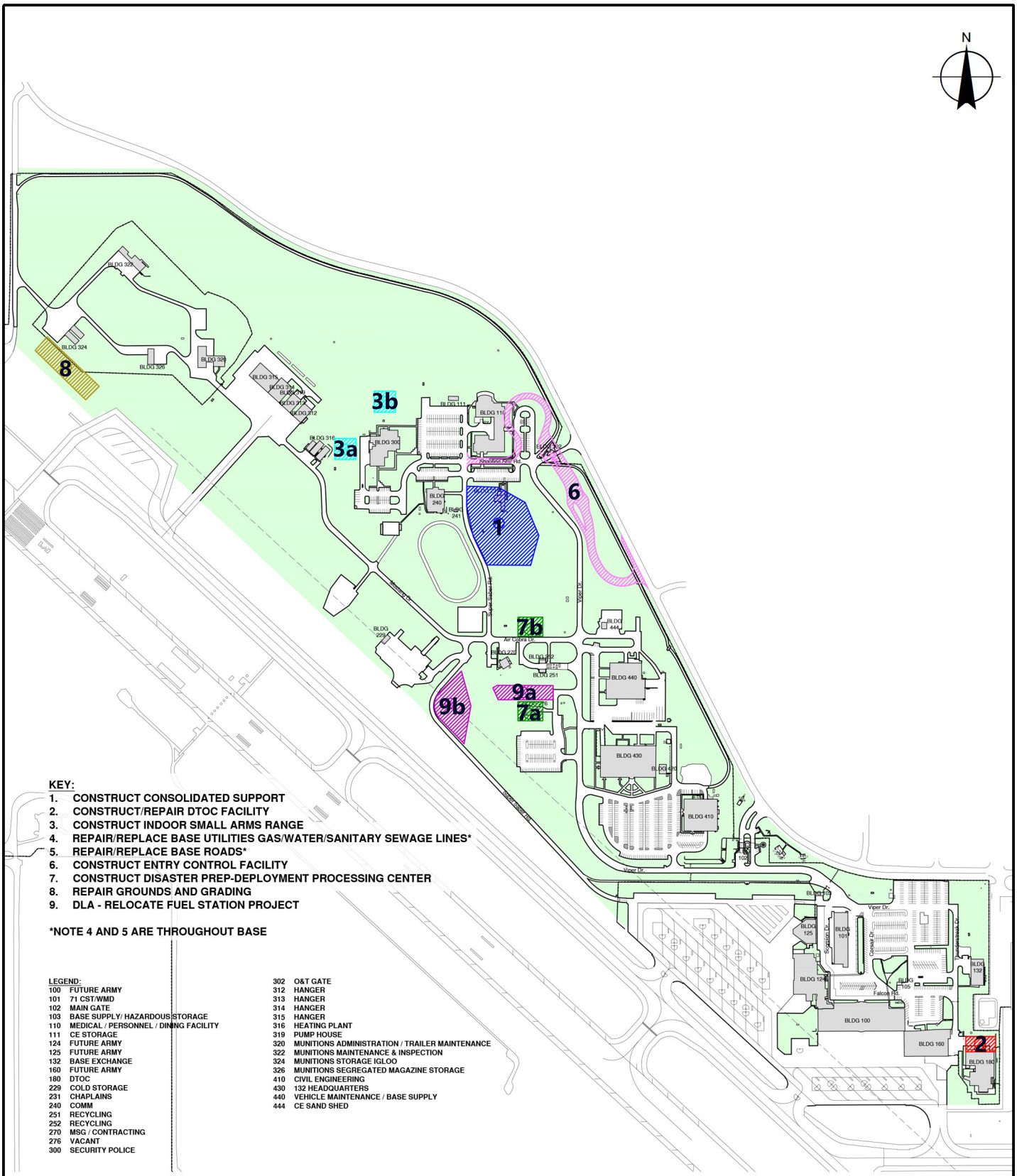


Attachment 2: 132d WG Project List

Project Number	Project Description	Project number	Fiscal Year
1	**Construct Consolidated Support Facility.** Construct a new 27,250 SF consolidated support facility in the footprint of B231 compliant with AT/FP and ANG Handbook 32-1084 requirements (See Proposed Project Locations, Site 1).	FFAN189110	2030
2	**Addition or Alteration (ADAL) of DTOC Facility.** Construct a 12,320 SF addition or alteration of existing B180. Renovate B180, reconfiguring the space to meet the unique needs of the DTOC, provide on-site storage of mission equipment, and meet AT/FP requirements (See Proposed Project Locations, Site 2).	FFAN189180/ FFAN202180	2030
3*	**Construct Indoor Small Arms Range.** Construct a 9,600 SF stand-alone 12-lane modular indoor firing range on the Des Moines ANGB (See Proposed Project Locations, Site 3a or 3b).	FFAN189301*	2030
4	**Repair/Replace Basewide Utilities (Gas, Water, Sanitary Sewage Lines).** Repair/upgrade the outdated or structurally deficient water utility lines and natural gas distribution system.	FFAN082191/ FFAN982047	2031
5	**Repair/Replace Base Roads.** Repair damaged subbase and pavements, repair, grade, and install stormwater drainage to address flooding issues, and construct new AT/FP compliant parking.	FFAN982044	2031
6	**Construct Entry Control Facility.** Construct a new main ECF off McKinley Avenue at Shooting Star Road that meets AT/FP setback requirements, UFC vehicle inspection area standards, and provides adequate access to large vehicles (See Proposed Project Locations, Site 6).	FFAN189062	2030
7	**Construct Disaster Prep-Deployment Processing Center.** Construct a new 14,600 SF combined facility for dedicated disaster preparation, deployment processing, and base gymnasium activities (See Proposed Project Locations, Site 7a or 7b).	FFAN209276	2030
8	**Repair Grounds and Grading.** Repair/regrade approximately 19,000 SF adjacent to the flight line to correct ongoing drainage washout issues (See Proposed Project Locations, Site 8).	FFAN212001	2022
9	**DLA – Relocate Fuel Station Project.** Construct a properly sized and configured vehicle fueling station to support the 132d WG's mission (See Proposed Project Locations, Site 9a or 9b).	FFAN012051/ FFAN199280/ FFAN162280	2022

* Project approval for Des Moines FY21 rescinded. This line item can be removed if CATEX #A2.3.11 can continue to be used based on proposed Mission Conversion EA at the 132 Fighter Wing, Des Moines Air National Guard Base, Des Moines, IA with FONSI dated 2015, and project #FFAN049062 as the comparable.

Attachment 3: Proposed Project Locations
Air National Guard 132d Wing, Des Moines, Polk County, IA



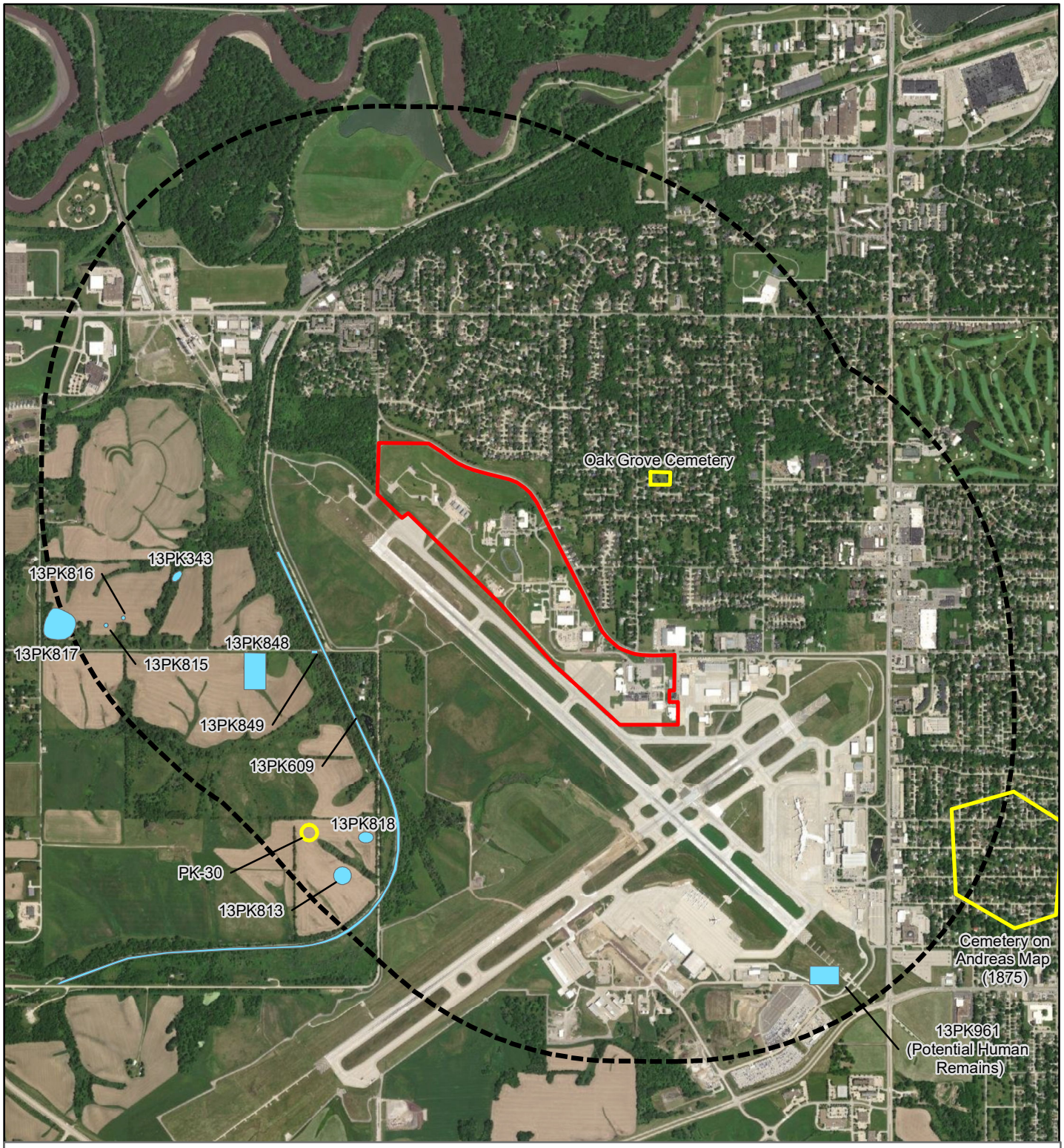
KEY:

1. CONSTRUCT CONSOLIDATED SUPPORT
2. CONSTRUCT/REPAIR DTOC FACILITY
3. CONSTRUCT INDOOR SMALL ARMS RANGE
4. REPAIR/REPLACE BASE UTILITIES GAS/WATER/SANITARY SEWAGE LINES*
5. REPAIR/REPLACE BASE ROADS*
6. CONSTRUCT ENTRY CONTROL FACILITY
7. CONSTRUCT DISASTER PREP-DEPLOYMENT PROCESSING CENTER
8. REPAIR GROUNDS AND GRADING
9. DLA - RELOCATE FUEL STATION PROJECT

*NOTE 4 AND 5 ARE THROUGHOUT BASE

LEGEND:

100	FUTURE ARMY
101	71 CST/WMD
102	MAIN GATE
103	BASE SUPPLY/ HAZARDOUS STORAGE
110	MEDICAL / PERSONNEL / DINING FACILITY
111	CE STORAGE
124	FUTURE ARMY
125	FUTURE ARMY
132	BASE EXCHANGE
160	FUTURE ARMY
180	DTOC
229	COLD STORAGE
231	CHAPLAINS
240	COMM
251	RECYCLING
252	RECYCLING
270	MSG / CONTRACTING
276	VACANT
300	SECURITY POLICE
302	O&T GATE
312	HANGER
313	HANGER
314	HANGER
315	HANGER
316	HEATING PLANT
319	PUMP HOUSE
320	MUNITIONS ADMINISTRATION / TRAILER MAINTENANCE
322	MUNITIONS MAINTENANCE & INSPECTION
324	MUNITIONS STORAGE IGLOO
326	MUNITIONS SEGREGATED MAGAZINE STORAGE
410	CIVIL ENGINEERING
430	132 HEADQUARTERS
440	VEHICLE MAINTENANCE / BASE SUPPLY
444	CE SAND SHED



Attachment 4 - Des Moines ANGB Previously Recorded Sites

1 Mile Search Radius

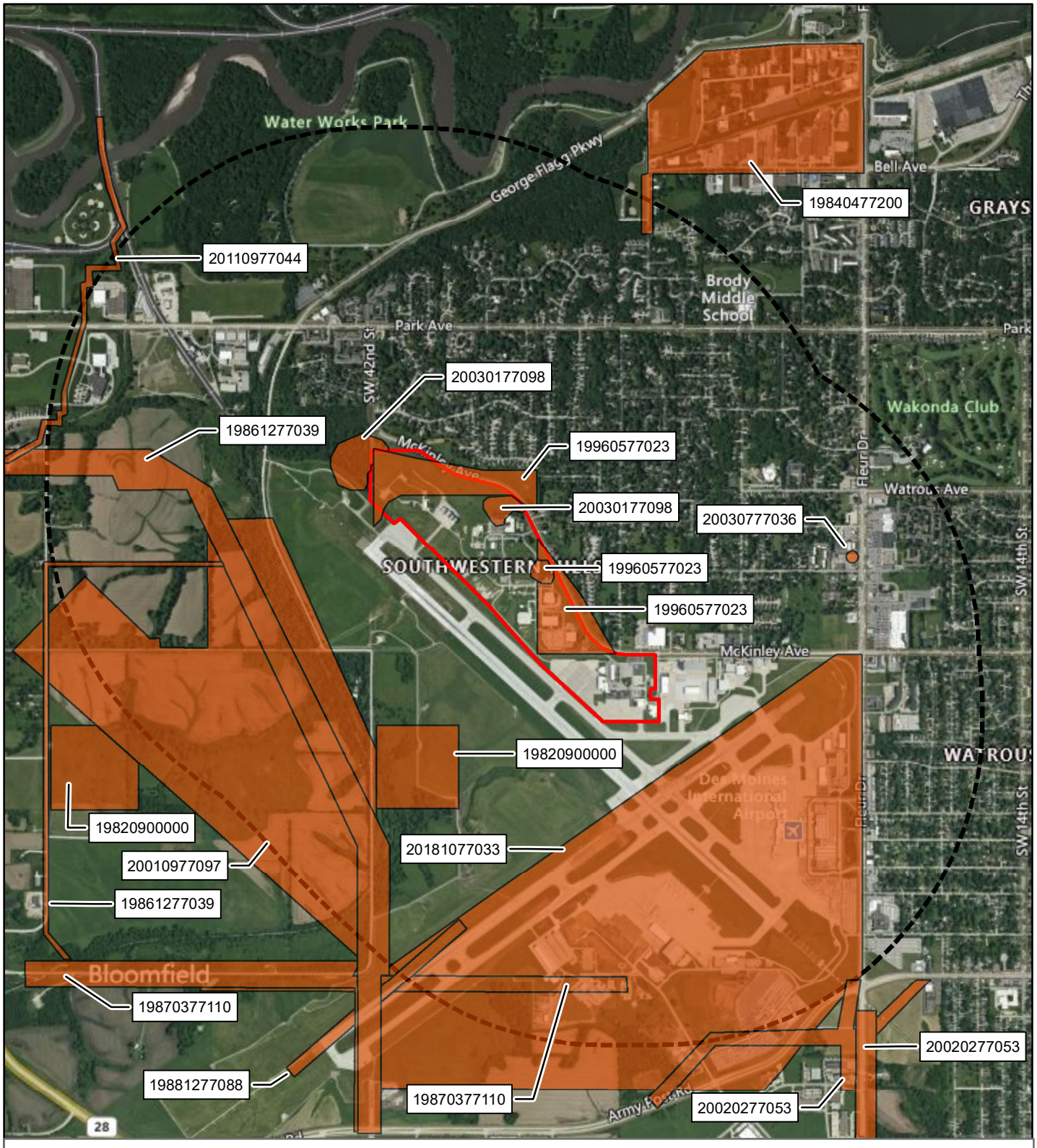
Project Area

Archaeological Site

Notable Locations

0 0.5 1 Miles

0 0.5 1 1.5 Kilometers



Attachment 5 - Des Moines ANG Previously Recorded Surveys

Project Area

1 Mile Search Radius

Archaeological Surveys

0 0.5 1 Miles

0 0.5 1 1.5 Kilometers

Attachment 6 - Table of 132 WG Previously Recorded Sites and Previous Surveys

5966C Des Moines - Sites and Surveys within ANGB and within One-Mile Search Radius

WITHIN ANGB BOUNDARY						
SITES	**Site Number (13PKXXX)**	**Period**	**Type**	**Eligiblity**	**Recorded By**	**Year Recorded**
No sites within ANGB						
SURVEYS	**Survey Number**	**Author**	**Title**			**Year**
	19960577023	R.W. Anderson	Cultural and Historical Survey of Iowa Air National Guard Base, Polk County, Des Moines, Iowa			1996
	20030177098	engineering-environmental Managem	Final Report, Cultural Landscape Evaluation, Des Moines Air National Guard Base, Des Moines, Iowa			2004

WITHIN ONE MILE RADIUS						
SITES	**Site Number (13PKXXX)**	**Period**	**Type**	**SHPO NRHP Eval**	**Recorded By**	**Year Recorded**
	13PK343	Historic Euro-American	Historic Dump	Not eligible	Leah Rogers	2001
	13PK609	Historic Euro-American	Railroad related	Not eligible	Leah Rogers	2001
	13PK813	Historic Euro-American	Historic Scatter	Not eligible	Ben Hoksbergen	2001
	13PK815	Precontact; Historic Euro-American	Prehistoric Scatter	Not eligible	Ben Hoksbergen	2001
	13PK816	Precontact; Historic Euro-American	Prehistoric Scatter; Isolated Find	Not eligible	Ben Hoksbergen	2001
	13PK817	Precontact; Historic Euro-American	Precontact scatter; Historic farm/residence	Not eligible	Ben Hoksbergen	2001
	13PK818	Historic Euro-American	Historic Scatter	Not eligible	Ben Hoksbergen	2001
	13PK848	Historic Euro-American	Historic farm/residence	Not eligible	Leah Rogers	2006
	13PK849	Historic Euro-American	Structure/building remains; road/trail	Not eligible	Leah Rogers	2006
	13PK961	Historic Euro-American	Historic cemetery	Not evaluated	William Whittaker	2010
Notable find (no site number)	Oak Grove Cemetery					
Notable find (no site number)	Cemetery					
Notable find (no site number)	Findspot PK-30					
SURVEYS	**Survey Number**	**Author**	**Title**			**Year**
	19820900000	Kathryn Gourley	An Archaeological Survey of Central Iowa			1983
	19840477200	James T. Schnerre	Raccoon River Flood Project memo			1984
	19861277039	Carl A. Merry	A Phase I Archaeological Survey of Primary Roads Project F-28-1			1986
	19870377110	Carl A. Merry	A Phase I Archaeological Survey of Primary Roads Project FR-5-5(23)--2G-7			1987
	19881277088	Cynthia L. Peterson; Leah D. Rogers	Phase I Archaeological Survey of the Proposed Airport Expansion and Army Post Road Relocation Alternatives, T78N-R24W and T78N-R25W, Polk County, Iowa; Phase I Historic Architectural Survey of the Proposed Airport Expansion and Army Post Road Relocation Alternatives, T78N-R24W and T78N-R25W, Polk County, Iowa			1993
	19960577023	R.W. Anderson	Cultural and Historical Survey of Iowa Air National Guard Base, Polk County, Des Moines, Iowa			1996
	20010977097	Leah D. Rogers	Phase I Cultural Resources Investigation of the Proposed Des Moines International Airport Expansion Project, Bloomfield Township, Polk County, Iowa; Great Western Trail Mitigation - DSM International Airport, City of Des Moines, Polk County, Iowa; Des Moines International Airport 3-19-0027 Future Grant/Runway 13R-31L Land Acquisition, Phase I Archaeological Investigation, City of Des Moines, Polk County, Iowa			2002; 2002; 2006
	20020277053	Blane H. Nansel	Cultural Resources Evaluation of the Fleur Drive Widening Project memo			2002
	20030177098	engineering-environmental Managem	Final Report, Cultural Landscape Evaluation, Des Moines Air National Guard Base, Des Moines, Iowa			2004
	20030777036	Rebecca Lynn Johnson	Cellular Monopole Tower Location (a.k.a. U.S. Cellular #178340, Des Moines "Airlanes"), Section 20, T78N-R24W, Des Moines, Polk County, Iowa			2003
	20110977044	Toby A. Morrow	Phase I Intensive Archaeological Survey of the Proposed Southwest Area Diversion Facility, Phase 22, Segments 4 and 5, Polk County, Iowa			2011
	20181077033	Cindy L. Nagel	Des Moines International Airport Replacement Terminal Environmental Assessment, City of Des Moines, Polk County, Iowa; Pre-Construction Monitoring Supplemental Report to the Des Moines International Airport Replacement Terminal Environmental Assessment, City of Des Moines, Polk County, Iowa			2018; 2019

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3100 MCKINLEY AVENUE
DES MOINES IOWA 50321-2720

13 October 2021

Colonel Travis J. Crawmer
Commander, 132d Wing
3100 McKinley Avenue
Des Moines, Iowa 50321-2720

Chairman Bobby Komardley
Tribal Chairman
Apache Tribe of Oklahoma
P.O. Box 1330
Anadarko, OK 73005

Dear Chairman Komardley,

The National Guard Bureau (NGB) is currently investigating the feasibility of implementing short-range infrastructure construction, demolition, and renovation projects at the 132d Wing (132 WG) of the Air National Guard (ANG) on the ANG base at the Des Moines International Airport (DSM) in Des Moines, IA (Attachment 1). The purpose of implementing these projects from the Installation Development Plan (the Proposed Action) is to provide the 132 WG with the properly sized and configured facilities required to effectively accomplish their mission. The Proposed Action provides a planning, programming, and development strategy that would address current mission deficiencies and opportunities for the 132 WG. The unit proposes nine infrastructure projects as summarized in the 132 WG Project List (Attachment 2).

As directed by the National Environmental Policy Act (NEPA) (40 CFR § 1501.3(b)), the NGB, with support from Tetra Tech, is preparing an Environmental Assessment (EA) to evaluate the potential environmental effects associated with implementing the Proposed Action. The Area of Potential Effects (APE) (Attachment 3) for the Proposed Action is defined as any area where ground disturbance will occur, including staging areas for equipment and materials. The purpose of this letter is to initiate consultation under Section 106 of the National Historic Preservation Act (NHPA) (36 CFR § 800) on the proposed projects in support of the NEPA analysis.

The EA will also provide analysis for the mid- to long-range projects (within the next 6–20 years) to the extent project specific information is currently available. As projects change or more information becomes available, future NEPA analyses can tier from this EA referencing its broad analysis to address those changes.

Two prior cultural resource studies, which partially overlap with the current APE, have been conducted on the ANG base. In 1996, a survey of archaeological and historic

resources was conducted for two undeveloped parcels adjacent to DSM (Anderson 1996). The combined total of the parcel to the north (34.9 acres) and the parcel to the east (34.5 acres) was 69.4 acres. No archaeological or historic resources were identified in the survey area. The Iowa State Historic Preservation Officer provided no feedback on the survey report within the 30-day comment period and, thus, concurred by default on February 25, 1999.

The second cultural resources study was conducted in 2002 and included a pedestrian inventory, and limited shovel testing along the northern side of the main runway and shovel testing at several small, non-contiguous areas adjacent to the northern perimeter of the ANGB totaling 22.5 acres (e^2M 2003). The archaeological survey portion of the study identified no archaeological resources and recommended no additional archaeological work. There is no record of SHPO concurrence in the 2007 ICRMP, the 2020 ICRMPs or the 2003 cultural landscape report.

The historic resources portion of the study identified 36 extant buildings, of which 24 were constructed between 1941 and 1989 and were subject to evaluation (e^2M 2003). Three of the 24 structures evaluated were 50 years or older in 2003 and were assessed for eligibility for inclusion in the National Register of Historic Places (NRHP). Only one of the structures, the hangar (Building 100), was recommended as eligible for inclusion in the NRHP. The remaining 21 structures were evaluated under Criterion Consideration G (Title 36 of the Code of Federal Regulations [CFR] § 60.4) for possible association with the Cold War, and found to be not eligible for inclusion in the NRHP under Criterion Consideration G. The report stated that no additional cultural landscape evaluation work was required at the time; however, it recommended structures be reevaluated once they reach 50 years of age (e^2M 2003). Currently, Buildings 103, 107, 110, 228, 231, 312, 313, 314, 315, 316, 410, and 430 have reached 50 years of age.

The results of these two surveys are summarized in the base's current Integrated Cultural Resources Management Plan (ICRMP). The ICRMP states:

> The base has one built resource that is eligible for listing to the NRHP, Building 100, the base's wing headquarters and aircraft maintenance hangar. All buildings constructed prior to 1990 have been evaluated for their NRHP eligibility in two cultural resource surveys (Anderson 1996, e^2M 2003). No other NRHP eligible resources were identified. Therefore, the base is considered to be low probability for additional built resources to be eligible for listing to the NRHP (pg. 25).

The NRHP-eligible hangar, Building 100, is not within the APE of any of the nine proposed projects (Attachment 3).

Because Building 100 will not be affected by any of the proposed projects in the project list, and because all ground disturbance will occur in areas previously surveyed for cultural resources or within areas of previous disturbance that extends beyond the proposed effects, the NGB has reached a determination of no historic properties affected for the proposed undertaking. We understand, however, that tribal government interests may vary from those of the NGB;

therefore, we invite you to comment on any of our proposed undertakings and/or project determination.

The 132 WG and NGB also invite you to consult on the proposed undertakings in accordance with Executive Order (EO) 13175, *Consultation and Coordination with Indian Tribal Governments*; EO 12372, *Intergovernmental Review of Federal Programs*; and NHPA Section 106 (36 CFR §§ 800.2, 800.3, and 800.4).

As part of our consultation efforts, we respectfully request your assistance in identifying the following:

- Traditional resources that may be located within the current APE;
- Historic properties in the APE of which we may not be aware; and/or
- Your Tribe's interest in participating in additional consultation.

If your Tribe is interested in participating in additional consultation, the NGB and 132 WG will work with your office to adopt procedures that will meet your Tribe's needs and requirements for continued participation.

To enable the NGB to address your concerns in a timely manner for both the Tribe and the proposed undertaking, please respond to this letter within 30 days of receipt. Submit your comments either by U.S. Postal Service to Jennifer Harty, Cultural Resources Program Manager (A4), 3501 Fetchet Avenue, Joint Base Andrews MD 20762-5157 or by email to NGB.A4.A4A.NEPA.COMMENTS.Org@us.af.mil with the subject line ATTN: 132 WG EA. Thank you for your assistance.

Sincerely,

TRAVIS J. CRAWMER, Col, USAF
Commander

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13 October 2021

Colonel Travis J. Crawmer
Commander, 132d Wing
3100 McKinley Avenue
Des Moines, Iowa 50321-2720

Chairman Edgar B. Kent, Jr.
Chairman
Iowa Tribe of Oklahoma
335588 E. 750 Road
Perkins, OK 74059

Dear Chairman Kent, Jr.,

The National Guard Bureau (NGB) is currently investigating the feasibility of implementing short-range infrastructure construction, demolition, and renovation projects at the 132d Wing (132 WG) of the Air National Guard (ANG) on the ANG base at the Des Moines International Airport (DSM) in Des Moines, IA (Attachment 1). The purpose of implementing these projects from the Installation Development Plan (the Proposed Action) is to provide the 132 WG with the properly sized and configured facilities required to effectively accomplish their mission. The Proposed Action provides a planning, programming, and development strategy that would address current mission deficiencies and opportunities for the 132 WG. The unit proposes nine infrastructure projects as summarized in the 132 WG Project List (Attachment 2).

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therefore, we invite you to comment on any of our proposed undertakings and/or project determination.

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To enable the NGB to address your concerns in a timely manner for both the Tribe and the proposed undertaking, please respond to this letter within 30 days of receipt. Submit your comments either by U.S. Postal Service to Jennifer Harty, Cultural Resources Program Manager (A4), 3501 Fetchet Avenue, Joint Base Andrews MD 20762-5157 or by email to NGB.A4.A4A.NEPA.COMMENTS.Org@us.af.mil with the subject line ATTN: 132 WG EA. Thank you for your assistance.

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Colonel Travis J. Crawmer
Commander, 132d Wing
3100 McKinley Avenue
Des Moines, Iowa 50321-2720

Director David Grignon,
Historic Preservation Director
Menominee Indian Tribe of Wisconsin
PO Box 910
Keshena, WI 54135

Dear Director Grignon,

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Sincerely,

TRAVIS J. CRAWMER, Col, USAF
Commander

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Colonel Travis J. Crawmer
Commander, 132d Wing
3100 McKinley Avenue
Des Moines, Iowa 50321-2720

Mr. Mark Junker
Tribal Response Coordinator
Sac and Fox Nation of Missouri in Kansas and Nebraska
305 North Main Street
Reserve, KS 66434

Dear Mr. Junker,

The National Guard Bureau (NGB) is currently investigating the feasibility of implementing short-range infrastructure construction, demolition, and renovation projects at the 132d Wing (132 WG) of the Air National Guard (ANG) on the ANG base at the Des Moines International Airport (DSM) in Des Moines, IA (Attachment 1). The purpose of implementing these projects from the Installation Development Plan (the Proposed Action) is to provide the 132 WG with the properly sized and configured facilities required to effectively accomplish their mission. The Proposed Action provides a planning, programming, and development strategy that would address current mission deficiencies and opportunities for the 132 WG. The unit proposes nine infrastructure projects as summarized in the 132 WG Project List (Attachment 2).

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resources was conducted for two undeveloped parcels adjacent to DSM (Anderson 1996). The combined total of the parcel to the north (34.9 acres) and the parcel to the east (34.5 acres) was 69.4 acres. No archaeological or historic resources were identified in the survey area. The Iowa State Historic Preservation Officer provided no feedback on the survey report within the 30-day comment period and, thus, concurred by default on February 25, 1999.

The second cultural resources study was conducted in 2002 and included a pedestrian inventory, and limited shovel testing along the northern side of the main runway and shovel testing at several small, non-contiguous areas adjacent to the northern perimeter of the ANGB totaling 22.5 acres (e^2M 2003). The archaeological survey portion of the study identified no archaeological resources and recommended no additional archaeological work. There is no record of SHPO concurrence in the 2007 ICRMP, the 2020 ICRMPs or the 2003 cultural landscape report.

The historic resources portion of the study identified 36 extant buildings, of which 24 were constructed between 1941 and 1989 and were subject to evaluation (e^2M 2003). Three of the 24 structures evaluated were 50 years or older in 2003 and were assessed for eligibility for inclusion in the National Register of Historic Places (NRHP). Only one of the structures, the hangar (Building 100), was recommended as eligible for inclusion in the NRHP. The remaining 21 structures were evaluated under Criterion Consideration G (Title 36 of the Code of Federal Regulations [CFR] § 60.4) for possible association with the Cold War, and found to be not eligible for inclusion in the NRHP under Criterion Consideration G. The report stated that no additional cultural landscape evaluation work was required at the time; however, it recommended structures be reevaluated once they reach 50 years of age (e^2M 2003). Currently, Buildings 103, 107, 110, 228, 231, 312, 313, 314, 315, 316, 410, and 430 have reached 50 years of age.

The results of these two surveys are summarized in the base's current Integrated Cultural Resources Management Plan (ICRMP). The ICRMP states:

> The base has one built resource that is eligible for listing to the NRHP, Building 100, the base's wing headquarters and aircraft maintenance hangar. All buildings constructed prior to 1990 have been evaluated for their NRHP eligibility in two cultural resource surveys (Anderson 1996, e^2M 2003). No other NRHP eligible resources were identified. Therefore, the base is considered to be low probability for additional built resources to be eligible for listing to the NRHP (pg. 25).

The NRHP-eligible hangar, Building 100, is not within the APE of any of the nine proposed projects (Attachment 3).

Because Building 100 will not be affected by any of the proposed projects in the project list, and because all ground disturbance will occur in areas previously surveyed for cultural resources or within areas of previous disturbance that extends beyond the proposed effects, the NGB has reached a determination of no historic properties affected for the proposed undertaking. We understand, however, that tribal government interests may vary from those of the NGB;

therefore, we invite you to comment on any of our proposed undertakings and/or project determination.

The 132 WG and NGB also invite you to consult on the proposed undertakings in accordance with Executive Order (EO) 13175, *Consultation and Coordination with Indian Tribal Governments*; EO 12372, *Intergovernmental Review of Federal Programs*; and NHPA Section 106 (36 CFR §§ 800.2, 800.3, and 800.4).

As part of our consultation efforts, we respectfully request your assistance in identifying the following:

- Traditional resources that may be located within the current APE;
- Historic properties in the APE of which we may not be aware; and/or
- Your Tribe's interest in participating in additional consultation.

If your Tribe is interested in participating in additional consultation, the NGB and 132 WG will work with your office to adopt procedures that will meet your Tribe's needs and requirements for continued participation.

To enable the NGB to address your concerns in a timely manner for both the Tribe and the proposed undertaking, please respond to this letter within 30 days of receipt. Submit your comments either by U.S. Postal Service to Jennifer Harty, Cultural Resources Program Manager (A4), 3501 Fetchet Avenue, Joint Base Andrews MD 20762-5157 or by email to NGB.A4.A4A.NEPA.COMMENTS.Org@us.af.mil with the subject line ATTN: 132 WG EA. Thank you for your assistance.

Sincerely,

TRAVIS J. CRAWMER, Col, USAF
Commander

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IOWA AIR NATIONAL GUARD
HEADQUARTERS 132D WING
3100 MCKINLEY AVENUE
DES MOINES IOWA 50321-2720

13 October 2021

Colonel Travis J. Crawmer
Commander, 132d Wing
3100 McKinley Avenue
Des Moines, Iowa 50321-2720

Principal Chief Justin Freeland Wood
Principal Chief
Sac and Fox Nation Oklahoma
Administration Building
920883 S. Hwy 99 Bldg. A
Stroud, OK 74079

Dear Principal Chief Wood,

The National Guard Bureau (NGB) is currently investigating the feasibility of implementing short-range infrastructure construction, demolition, and renovation projects at the 132d Wing (132 WG) of the Air National Guard (ANG) on the ANG base at the Des Moines International Airport (DSM) in Des Moines, IA (Attachment 1). The purpose of implementing these projects from the Installation Development Plan (the Proposed Action) is to provide the 132 WG with the properly sized and configured facilities required to effectively accomplish their mission. The Proposed Action provides a planning, programming, and development strategy that would address current mission deficiencies and opportunities for the 132 WG. The unit proposes nine infrastructure projects as summarized in the 132 WG Project List (Attachment 2).

As directed by the National Environmental Policy Act (NEPA) (40 CFR § 1501.3(b)), the NGB, with support from Tetra Tech, is preparing an Environmental Assessment (EA) to evaluate the potential environmental effects associated with implementing the Proposed Action. The Area of Potential Effects (APE) (Attachment 3) for the Proposed Action is defined as any area where ground disturbance will occur, including staging areas for equipment and materials. The purpose of this letter is to initiate consultation under Section 106 of the National Historic Preservation Act (NHPA) (36 CFR § 800) on the proposed projects in support of the NEPA analysis.

The EA will also provide analysis for the mid- to long-range projects (within the next 6–20 years) to the extent project specific information is currently available. As projects change or more information becomes available, future NEPA analyses can tier from this EA referencing its broad analysis to address those changes.

Two prior cultural resource studies, which partially overlap with the current APE, have been conducted on the ANG base. In 1996, a survey of archaeological and historic resources was conducted for two undeveloped parcels adjacent to DSM (Anderson 1996). The combined total of the parcel to the north (34.9 acres) and the parcel to the east (34.5 acres) was 69.4 acres. No archaeological or historic resources were identified in the survey area. The Iowa State Historic Preservation Officer provided no feedback on the survey report within the 30-day comment period and, thus, concurred by default on February 25, 1999.

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The historic resources portion of the study identified 36 extant buildings, of which 24 were constructed between 1941 and 1989 and were subject to evaluation (e^2M 2003). Three of the 24 structures evaluated were 50 years or older in 2003 and were assessed for eligibility for inclusion in the National Register of Historic Places (NRHP). Only one of the structures, the hangar (Building 100), was recommended as eligible for inclusion in the NRHP. The remaining 21 structures were evaluated under Criterion Consideration G (Title 36 of the Code of Federal Regulations [CFR] § 60.4) for possible association with the Cold War, and found to be not eligible for inclusion in the NRHP under Criterion Consideration G. The report stated that no additional cultural landscape evaluation work was required at the time; however, it recommended structures be reevaluated once they reach 50 years of age (e^2M 2003). Currently, Buildings 103, 107, 110, 228, 231, 312, 313, 314, 315, 316, 410, and 430 have reached 50 years of age.

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> The base has one built resource that is eligible for listing to the NRHP, Building 100, the base's wing headquarters and aircraft maintenance hangar. All buildings constructed prior to 1990 have been evaluated for their NRHP eligibility in two cultural resource surveys (Anderson 1996, e^2M 2003). No other NRHP eligible resources were identified. Therefore, the base is considered to be low probability for additional built resources to be eligible for listing to the NRHP (pg. 25).

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understand, however, that tribal government interests may vary from those of the NGB; therefore, we invite you to comment on any of our proposed undertakings and/or project determination.

The 132 WG and NGB also invite you to consult on the proposed undertakings in accordance with Executive Order (EO) 13175, *Consultation and Coordination with Indian Tribal Governments*; EO 12372, *Intergovernmental Review of Federal Programs*; and NHPA Section 106 (36 CFR §§ 800.2, 800.3, and 800.4).

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To enable the NGB to address your concerns in a timely manner for both the Tribe and the proposed undertaking, please respond to this letter within 30 days of receipt. Submit your comments either by U.S. Postal Service to Jennifer Harty, Cultural Resources Program Manager (A4), 3501 Fetchet Avenue, Joint Base Andrews MD 20762-5157 or by email to NGB.A4.A4A.NEPA.COMMENTS.Org@us.af.mil with the subject line ATTN: 132 WG EA. Thank you for your assistance.

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Commander

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13 October 2021

Colonel Travis J. Crawmer
Commander, 132d Wing
3100 McKinley Avenue
Des Moines, Iowa 50321-2720

Chairwomen Judith Bender
Tribal Chairwomen
Sac and Fox Tribe of the Mississippi in Iowa
349 Meskwaki Road
Tama, IA 52339

Dear Chairwomen Bender,

The National Guard Bureau (NGB) is currently investigating the feasibility of implementing short-range infrastructure construction, demolition, and renovation projects at the 132d Wing (132 WG) of the Air National Guard (ANG) on the ANG base at the Des Moines International Airport (DSM) in Des Moines, IA (Attachment 1). The purpose of implementing these projects from the Installation Development Plan (the Proposed Action) is to provide the 132 WG with the properly sized and configured facilities required to effectively accomplish their mission. The Proposed Action provides a planning, programming, and development strategy that would address current mission deficiencies and opportunities for the 132 WG. The unit proposes nine infrastructure projects as summarized in the 132 WG Project List (Attachment 2).

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Appendix B

Notice of Availability

(PREPARER'S NOTE: To be provided after NOA is published.)

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Appendix C

Air Conformity Applicability Model Results

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AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF AIR ANALYSIS (ROAA)

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impact/s associated with the action in accordance with the Air Force Manual 32-7002, Environmental Compliance and Pollution Prevention; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the General Conformity Rule (GCR, 40 CFR 93 Subpart B). This report provides a summary of the ACAM analysis.

a. Action Location:

Base: Des Moines ANGB
State: Iowa
County(s): Polk
Regulatory Area(s): NOT IN A REGULATORY AREA

b. Action Title: Des Moines ANGB IDP

d. Projected Action Start Date: 1 / 2023

e. Action Description:

Activity Square Feet
Construction 63,770
Grading 85,027
Trenching 12,754
Architectural Coatings 63,770
Paving 63,770
Demolition 29,989
Heating 33,781

2. Air Impact Analysis: Based on the attainment status at the action location, the requirements of the General Conformity Rule are: not applicable.

Total net direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the start of the action through achieving "steady state" (i.e., net gain/loss upon action fully implemented) emissions. The ACAM analysis used the latest and most accurate emission estimation techniques available; all algorithms, emission factors, and methodologies used are described in detail in the USAF Air Emissions Guide for Air Force Stationary Sources, the USAF Air Emissions Guide for Air Force Mobile Sources, and the USAF Air Emissions Guide for Air Force Transitory Sources.

"Insignificance Indicators" were used in the analysis to provide an indication of the significance of potential impacts to air quality based on current ambient air quality relative to the National Ambient Air Quality Standards (NAAQSs). These insignificance indicators are the 250 ton/yr Prevention of Significant Deterioration (PSD) major source threshold for actions occurring in areas that are "Clearly Attainment" (i.e., not within 5% of any NAAQS) and the GCR de minimis values (25 ton/yr for lead and 100 ton/yr for all other criteria pollutants) for actions occurring in areas that are "Near Nonattainment" (i.e., within 5% of any NAAQS). These indicators do not define a significant impact; however, they do provide a threshold to identify actions that are insignificant. Any action with net emissions below the insignificance indicators for all criteria pollutant is considered so insignificant that the action will not cause or contribute to an exceedance on one or more NAAQSs. For further detail on insignificance indicators see chapter 4 of the Air Force Air Quality Environmental Impact Analysis Process (EIAP) Guide, Volume II - Advanced Assessments.

The action's net emissions for every year through achieving steady state were compared against the Insignificance Indicator and are summarized below. None of estimated annual net emissions associated with this action are above the insignificance indicators, indicating no significant impact to air quality. Therefore, the action will not cause or contribute to an exceedance on one or more NAAQSs.No further air assessment is needed.

AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF AIR ANALYSIS (ROAA)

Construction Emissions

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	1.428	100	No
NOx	4.006	100	No
CO	5.166	250	No
SOx	0.011	250	No
PM 10	5.694	250	No
PM 2.5	0.162	250	No
Pb	0.000	25	No
NH3	0.003	250	No
CO2e	1096.5		

Operational Emissions

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	0.037	100	No
NOx	0.271	100	No
CO	0.208	250	No
SOx	0.025	250	No
PM 10	0.037	250	No
PM 2.5	0.037	250	No
Pb	0.000	25	No
NH3	0.000	250	No
CO2e	200.0		

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

1. General Information

- Action Location
Base: Des Moines ANGB
State: Iowa
County(s): Polk
Regulatory Area(s): NOT IN A REGULATORY AREA

- Action Title: Des Moines ANGB IDP

- Project Number/s (if applicable):

- Projected Action Start Date: 1 / 2023

- Action Purpose and Need:
Des Moines ANGB ANG Base IDP

- Action Description:
Activity Square Feet
Construction 63,770
Grading 85,027
Trenching 12,754
Architectural Coatings 63,770
Paving 63,770
Demolition 29,989
Heating 33,781

- Activity List:

Activity Type		Activity Title
2.	Construction / Demolition	Construction
3.	Heating	Heating of Buildings
4.	Emergency Generator	Potential Back-Up Generators

Emission factors and air emission estimating methods come from the United States Air Force's Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and Air Emissions Guide for Air Force Transitory Sources.

2. Construction / Demolition

2.1 General Information & Timeline Assumptions

- Activity Location
County: Polk
Regulatory Area(s): NOT IN A REGULATORY AREA

- Activity Title: Construction

- Activity Description:
Construction
Construction 63770
Demolition 29989

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Activity Start Date
Start Month: 1
Start Month: 2023

- Activity End Date
Indefinite: False
End Month: 12
End Month: 2023

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	1.427753
SO_x	0.011262
NO_x	4.005765
CO	5.166284
PM 10	5.694024

Pollutant	Total Emissions (TONs)
PM 2.5	0.162334
Pb	0.000000
NH_3	0.003385
CO_2e	1096.5

2.1 Demolition Phase

2.1.1 Demolition Phase Timeline Assumptions

- Phase Start Date
Start Month: 1
Start Quarter: 1
Start Year: 2023

- Phase Duration
Number of Month: 12
Number of Days: 0

2.1.2 Demolition Phase Assumptions

- General Demolition Information
Area of Building to be demolished (ft^2): 29989
Height of Building to be demolished (ft): 12

- Default Settings Used: Yes

- Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Concrete/Industrial Saws Composite	1	8
Rubber Tired Dozers Composite	1	1
Tractors/Loaders/Backhoes Composite	2	6

- Vehicle Exhaust
Average Hauling Truck Capacity (yd^3): 20 (default)
Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.1.3 Demolition Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Concrete/Industrial Saws Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0382	0.0006	0.2766	0.3728	0.0127	0.0127	0.0034	58.549
Rubber Tired Dozers Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.1830	0.0024	1.2623	0.7077	0.0494	0.0494	0.0165	239.49
Tractors/Loaders/Backhoes Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0364	0.0007	0.2127	0.3593	0.0080	0.0080	0.0032	66.879

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	Pb	NH_3	CO_2e
LDGV	000.334	000.002	000.245	003.720	000.009	000.008		000.023	00319.303
LDGT	000.398	000.003	000.417	004.954	000.012	000.010		000.024	00410.710
HDGV	000.683	000.005	001.035	015.225	000.025	000.022		000.044	00751.628
LDDV	000.131	000.003	000.134	002.407	000.004	000.004		000.008	00307.618
LDDT	000.265	000.004	000.378	004.081	000.007	000.006		000.008	00436.466
HDDV	000.552	000.013	005.321	001.853	000.168	000.155		000.029	01486.029
MC	002.267	000.003	000.798	013.529	000.027	000.024		000.055	00397.979

2.1.4 Demolition Phase Formula(s)

- Fugitive Dust Emissions per Phase

$PM10_{FD} = (0.00042 * BA * BH) / 2000$

$PM10_{FD}$: Fugitive Dust PM 10 Emissions (TONs)
0.00042: Emission Factor (lb/ft^3)
BA: Area of Building to be demolished (ft^2)
BH: Height of Building to be demolished (ft)
2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs)
NE: Number of Equipment
WD: Number of Total Work Days (days)
H: Hours Worked per Day (hours)
EF_{POL}: Emission Factor for Pollutant (lb/hour)
2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$VMT_{VE} = BA * BH * (1 / 27) * 0.25 * (1 / HC) * HT$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
BA: Area of Building being demolish (ft^2)
BH: Height of Building being demolish (ft)
(1 / 27): Conversion Factor cubic feet to cubic yards (1 yd^3 / 27 ft^3)
0.25: Volume reduction factor (material reduced by 75% to account for air space)
HC: Average Hauling Truck Capacity (yd^3)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd^3)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase
$VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

2.2 Site Grading Phase

2.2.1 Site Grading Phase Timeline Assumptions

- Phase Start Date
Start Month: 1
Start Quarter: 1
Start Year: 2023

- Phase Duration
Number of Month: 6
Number of Days: 0

2.2.2 Site Grading Phase Assumptions

- General Site Grading Information
Area of Site to be Graded (ft^2): 85027
Amount of Material to be Hauled On-Site (yd^3): 0
Amount of Material to be Hauled Off-Site (yd^3): 0

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Site Grading Default Settings

Default Settings Used: Yes

Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Graders Composite	1	6
Other Construction Equipment Composite	1	8
Rubber Tired Dozers Composite	1	6
Tractors/Loaders/Backhoes Composite	1	7

- Vehicle Exhaust

Average Hauling Truck Capacity (yd^3): 20 (default)

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.2.3 Site Grading Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0757	0.0014	0.4155	0.5717	0.0191	0.0191	0.0068	132.91
Other Construction Equipment Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0483	0.0012	0.2497	0.3481	0.0091	0.0091	0.0043	122.61
Rubber Tired Dozers Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.1830	0.0024	1.2623	0.7077	0.0494	0.0494	0.0165	239.49
Tractors/Loaders/Backhoes Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0364	0.0007	0.2127	0.3593	0.0080	0.0080	0.0032	66.879

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	Pb	NH_3	CO_2e
LDGV	000.334	000.002	000.245	003.720	000.009	000.008		000.023	00319.303
LDGT	000.398	000.003	000.417	004.954	000.012	000.010		000.024	00410.710
HDGV	000.683	000.005	001.035	015.225	000.025	000.022		000.044	00751.628
LDDV	000.131	000.003	000.134	002.407	000.004	000.004		000.008	00307.618
LDDT	000.265	000.004	000.378	004.081	000.007	000.006		000.008	00436.466
HDDV	000.552	000.013	005.321	001.853	000.168	000.155		000.029	01486.029
MC	002.267	000.003	000.798	013.529	000.027	000.024		000.055	00397.979

2.2.4 Site Grading Phase Formula(s)

- Fugitive Dust Emissions per Phase
$PM10_{FD} = (20 * ACRE * WD) / 2000$

$PM10_{FD}$: Fugitive Dust PM 10 Emissions (TONs)
20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)
ACRE: Total acres (acres)
WD: Number of Total Work Days (days)
2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase
$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs)
NE: Number of Equipment
WD: Number of Total Work Days (days)
H: Hours Worked per Day (hours)
EF_{POL}: Emission Factor for Pollutant (lb/hour)
2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase
$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
HA_{OnSite}: Amount of Material to be Hauled On-Site (yd^3)
$HA_{OffSite}$: Amount of Material to be Hauled Off-Site (yd^3)
HC: Average Hauling Truck Capacity (yd^3)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd^3)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase
$VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

2.3 Trenching/Excavating Phase

2.3.1 Trenching / Excavating Phase Timeline Assumptions

- Phase Start Date
Start Month: 1
Start Quarter: 1
Start Year: 2023

- Phase Duration
Number of Month: 3
Number of Days: 0

2.3.2 Trenching / Excavating Phase Assumptions

- General Trenching/Excavating Information
Area of Site to be Trenched/Excavated (ft^2): 12754
Amount of Material to be Hauled On-Site (yd^3): 0
Amount of Material to be Hauled Off-Site (yd^3): 0

- Trenching Default Settings
Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Excavators Composite	2	8
Other General Industrial Equipmen Composite	1	8
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust
Average Hauling Truck Capacity (yd^3): 20 (default)
Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips
Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.3.3 Trenching / Excavating Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite								
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CH_4	CO_2e

Emission Factors	0.0757	0.0014	0.4155	0.5717	0.0191	0.0191	0.0068	132.91
Other Construction Equipment Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0483	0.0012	0.2497	0.3481	0.0091	0.0091	0.0043	122.61
Rubber Tired Dozers Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.1830	0.0024	1.2623	0.7077	0.0494	0.0494	0.0165	239.49
Tractors/Loaders/Backhoes Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0364	0.0007	0.2127	0.3593	0.0080	0.0080	0.0032	66.879

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	Pb	NH_3	CO_2e
LDGV	000.334	000.002	000.245	003.720	000.009	000.008		000.023	00319.303
LDGT	000.398	000.003	000.417	004.954	000.012	000.010		000.024	00410.710
HDGV	000.683	000.005	001.035	015.225	000.025	000.022		000.044	00751.628
LDDV	000.131	000.003	000.134	002.407	000.004	000.004		000.008	00307.618
LDDT	000.265	000.004	000.378	004.081	000.007	000.006		000.008	00436.466
HDDV	000.552	000.013	005.321	001.853	000.168	000.155		000.029	01486.029
MC	002.267	000.003	000.798	013.529	000.027	000.024		000.055	00397.979

2.3.4 Trenching / Excavating Phase Formula(s)

- Fugitive Dust Emissions per Phase

$PM10_{FD} = (20 * ACRE * WD) / 2000$

$PM10_{FD}$: Fugitive Dust PM 10 Emissions (TONs)
20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)
ACRE: Total acres (acres)
WD: Number of Total Work Days (days)
2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs)
NE: Number of Equipment
WD: Number of Total Work Days (days)
H: Hours Worked per Day (hours)
EF_{POL}: Emission Factor for Pollutant (lb/hour)
2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
HA_{OnSite}: Amount of Material to be Hauled On-Site (yd^3)
$HA_{OffSite}$: Amount of Material to be Hauled Off-Site (yd^3)
HC: Average Hauling Truck Capacity (yd^3)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd^3)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase
$VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

2.4 Building Construction Phase

2.4.1 Building Construction Phase Timeline Assumptions

- Phase Start Date
Start Month: 1
Start Quarter: 1
Start Year: 2023

- Phase Duration
Number of Month: 12
Number of Days: 0

2.4.2 Building Construction Phase Assumptions

- General Building Construction Information
Building Category: Office or Industrial
Area of Building (ft^2): 63770
Height of Building (ft): 12
Number of Units: N/A

- Building Construction Default Settings
Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Cranes Composite	1	6
Forklifts Composite	2	6
Generator Sets Composite	1	8

Tractors/Loaders/Backhoes Composite	1	8
Welders Composite	3	8

- Vehicle Exhaust

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

- Vendor Trips

Average Vendor Round Trip Commute (mile): 40 (default)

- Vendor Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

2.4.3 Building Construction Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Cranes Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0754	0.0013	0.5027	0.3786	0.0181	0.0181	0.0068	128.79
Forklifts Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0258	0.0006	0.1108	0.2145	0.0034	0.0034	0.0023	54.454
Generator Sets Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0320	0.0006	0.2612	0.2683	0.0103	0.0103	0.0028	61.065
Tractors/Loaders/Backhoes Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0364	0.0007	0.2127	0.3593	0.0080	0.0080	0.0032	66.879
Welders Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0242	0.0003	0.1487	0.1761	0.0067	0.0067	0.0021	25.657

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	Pb	NH_3	CO_2e
LDGV	000.334	000.002	000.245	003.720	000.009	000.008		000.023	00319.303
LDGT	000.398	000.003	000.417	004.954	000.012	000.010		000.024	00410.710
HDGV	000.683	000.005	001.035	015.225	000.025	000.022		000.044	00751.628
LDDV	000.131	000.003	000.134	002.407	000.004	000.004		000.008	00307.618
LDDT	000.265	000.004	000.378	004.081	000.007	000.006		000.008	00436.466
HDDV	000.552	000.013	005.321	001.853	000.168	000.155		000.029	01486.029
MC	002.267	000.003	000.798	013.529	000.027	000.024		000.055	00397.979

2.4.4 Building Construction Phase Formula(s)

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Construction Exhaust Emissions per Phase

$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs)
NE: Number of Equipment
WD: Number of Total Work Days (days)
H: Hours Worked per Day (hours)
EF_{POL}: Emission Factor for Pollutant (lb/hour)
2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$VMT_{VE} = BA * BH * (0.42 / 1000) * HT$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
BA: Area of Building (ft^2)
BH: Height of Building (ft)
(0.42 / 1000): Conversion Factor ft^3 to trips (0.42 trip / 1000 ft^3)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Vender Trips Emissions per Phase

$VMT_{VT} = BA * BH * (0.38 / 1000) * HT$

VMT_{VT}: Vender Trips Vehicle Miles Travel (miles)
BA: Area of Building (ft^2)
BH: Height of Building (ft)
(0.38 / 1000): Conversion Factor ft^3 to trips (0.38 trip / 1000 ft^3)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$V_{POL} = (VMT_{VT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VT}: Vender Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

2.5 Architectural Coatings Phase

2.5.1 Architectural Coatings Phase Timeline Assumptions

- Phase Start Date
Start Month: 1
Start Quarter: 1
Start Year: 2023

- Phase Duration
Number of Month: 3
Number of Days: 0

2.5.2 Architectural Coatings Phase Assumptions

- General Architectural Coatings Information
Building Category: Non-Residential
Total Square Footage (ft^2): 63770
Number of Units: N/A

- Architectural Coatings Default Settings
Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Worker Trips
Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.5.3 Architectural Coatings Phase Emission Factor(s)

- Worker Trips Emission Factors (grams/mile)

	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	Pb	NH_3	CO_2e
LDGV	000.334	000.002	000.245	003.720	000.009	000.008		000.023	00319.303
LDGT	000.398	000.003	000.417	004.954	000.012	000.010		000.024	00410.710
HDGV	000.683	000.005	001.035	015.225	000.025	000.022		000.044	00751.628
LDDV	000.131	000.003	000.134	002.407	000.004	000.004		000.008	00307.618
LDDT	000.265	000.004	000.378	004.081	000.007	000.006		000.008	00436.466
HDDV	000.552	000.013	005.321	001.853	000.168	000.155		000.029	01486.029
MC	002.267	000.003	000.798	013.529	000.027	000.024		000.055	00397.979

2.5.4 Architectural Coatings Phase Formula(s)

- Worker Trips Emissions per Phase
$VMT_{WT} = (1 * WT * PA) / 800$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
1: Conversion Factor man days to trips (1 trip / 1 man * day)
WT: Average Worker Round Trip Commute (mile)
PA: Paint Area (ft^2)
800: Conversion Factor square feet to man days (1 ft^2 / 1 man * day)

$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Off-Gassing Emissions per Phase
$VOC_{AC} = (AB * 2.0 * 0.0116) / 2000.0$

VOC_{AC}: Architectural Coating VOC Emissions (TONs)
BA: Area of Building (ft^2)
2.0: Conversion Factor total area to coated area (2.0 ft^2 coated area / total area)
0.0116: Emission Factor (lb/ft^2)
2000: Conversion Factor pounds to tons

2.6 Paving Phase

2.6.1 Paving Phase Timeline Assumptions

- Phase Start Date
Start Month: 1
Start Quarter: 1
Start Year: 2023

- Phase Duration
Number of Month: 3
Number of Days: 0

2.6.2 Paving Phase Assumptions

- General Paving Information
Paving Area (ft^2): 63770

- Paving Default Settings
Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Cement and Mortar Mixers Composite	4	6
Pavers Composite	1	7

Paving Equipment Composite	1	8
Rollers Composite	1	7
Tractors/Loaders/Backhoes Composite	1	7

- Vehicle Exhaust
Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips
Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.6.3 Paving Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0757	0.0014	0.4155	0.5717	0.0191	0.0191	0.0068	132.91
Other Construction Equipment Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0483	0.0012	0.2497	0.3481	0.0091	0.0091	0.0043	122.61
Rubber Tired Dozers Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.1830	0.0024	1.2623	0.7077	0.0494	0.0494	0.0165	239.49
Tractors/Loaders/Backhoes Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0364	0.0007	0.2127	0.3593	0.0080	0.0080	0.0032	66.879

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	Pb	NH_3	CO_2e
LDGV	000.334	000.002	000.245	003.720	000.009	000.008		000.023	00319.303
LDGT	000.398	000.003	000.417	004.954	000.012	000.010		000.024	00410.710
HDGV	000.683	000.005	001.035	015.225	000.025	000.022		000.044	00751.628
LDDV	000.131	000.003	000.134	002.407	000.004	000.004		000.008	00307.618
LDDT	000.265	000.004	000.378	004.081	000.007	000.006		000.008	00436.466
HDDV	000.552	000.013	005.321	001.853	000.168	000.155		000.029	01486.029
MC	002.267	000.003	000.798	013.529	000.027	000.024		000.055	00397.979

2.6.4 Paving Phase Formula(s)

- Construction Exhaust Emissions per Phase
$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs)
NE: Number of Equipment
WD: Number of Total Work Days (days)
H: Hours Worked per Day (hours)
EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase
$VMT_{VE} = PA * 0.25 * (1 / 27) * (1 / HC) * HT$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
PA: Paving Area (ft^2)
0.25: Thickness of Paving Area (ft)
(1 / 27): Conversion Factor cubic feet to cubic yards (1 yd^3 / 27 ft^3)
HC: Average Hauling Truck Capacity (yd^3)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd^3)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase
$VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Off-Gassing Emissions per Phase
$VOC_P = (2.62 * PA) / 43560$

VOC_P: Paving VOC Emissions (TONs)
2.62: Emission Factor (lb/acre)
PA: Paving Area (ft^2)
43560: Conversion Factor square feet to acre (43560 ft2 / $acre)^2$ / acre)

3. Heating

3.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Activity Location
County: Polk
Regulatory Area(s): NOT IN A REGULATORY AREA

- Activity Title: Heating of Buildings

- Activity Description:
Heating of Buildings - Net Chang in Area

- Activity Start Date
Start Month: 1
Start Year: 2024

- Activity End Date
Indefinite: Yes
End Month: N/A
End Year: N/A

- Activity Emissions:

Pollutant	Emissions Per Year (TONs)
VOC	0.008520
SO_x	0.000929
NO_x	0.154910
CO	0.130124
PM 10	0.011773

Pollutant	Emissions Per Year (TONs)
PM 2.5	0.011773
Pb	0.000000
NH_3	0.000000
CO_2e	186.5

3.2 Heating Assumptions

- Heating
Heating Calculation Type: Heat Energy Requirement Method

- Heat Energy Requirement Method
Area of floorspace to be heated (ft^2): 33781
Type of fuel: Natural Gas
Type of boiler/furnace: Industrial (10 - 250 MMBtu/hr)
Heat Value ($MMBtu/ft^3$): 0.00105
Energy Intensity ($MMBtu/ft^2$): 0.0963

- Default Settings Used: Yes

- Boiler/Furnace Usage
Operating Time Per Year (hours): 900 (default)

3.3 Heating Emission Factor(s)

- Heating Emission Factors (lb/1000000 scf)

VOC	SO_x	NO_x	CO	PM 10	PM 2.5	Pb	NH_3	CO_2e
5.5	0.6	100	84	7.6	7.6			120390

3.4 Heating Formula(s)

- Heating Fuel Consumption ft^3 per Year
FC_{HER}= HA * EI / HV / 1000000

FC_{HER}: Fuel Consumption for Heat Energy Requirement Method

HA: Area of floorspace to be heated (ft^2)
EI: Energy Intensity Requirement ($MMBtu/ft^2$)
HV: Heat Value ($MMBTU/ft^3$)
1000000: Conversion Factor

- Heating Emissions per Year

$HE_{POL} = FC * EF_{POL} / 2000$

HE_{POL}: Heating Emission Emissions (TONs)
FC: Fuel Consumption
EF_{POL}: Emission Factor for Pollutant
2000: Conversion Factor pounds to tons

4. Emergency Generator

4.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add

- Activity Location
County: Polk
Regulatory Area(s): NOT IN A REGULATORY AREA

- Activity Title: Potential Back-Up Generators

- Activity Description:
Potential Back-Up Generators

- Activity Start Date
Start Month: 1
Start Year: 2024

- Activity End Date
Indefinite: Yes
End Month: N/A
End Year: N/A

- Activity Emissions:

Pollutant	Emissions Per Year (TONs)
VOC	0.028249
SO_x	0.023794
NO_x	0.116438
CO	0.077760
PM 10	0.025414

Pollutant	Emissions Per Year (TONs)
PM 2.5	0.025414
Pb	0.000000
NH_3	0.000000
CO_2e	13.5

4.2 Emergency Generator Assumptions

- Emergency Generator
Type of Fuel used in Emergency Generator: Diesel
Number of Emergency Generators: 5

- Default Settings Used: Yes

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Emergency Generators Consumption

Emergency Generator's Horsepower: 135 (default)
Average Operating Hours Per Year (hours): 30 (default)

4.3 Emergency Generator Emission Factor(s)

- Emergency Generators Emission Factor (lb/hp-hr)

VOC	SO_x	NO_x	CO	PM 10	PM 2.5	Pb	NH_3	CO_2e
0.00279	0.00235	0.0115	0.00768	0.00251	0.00251			1.33

4.4 Emergency Generator Formula(s)

- Emergency Generator Emissions per Year

AE_{POL}= (NGEN * HP * OT * EF_{POL}) / 2000

AE_{POL}: Activity Emissions (TONs per Year)
NGEN: Number of Emergency Generators
HP: Emergency Generator's Horsepower (hp)
OT: Average Operating Hours Per Year (hours)
EF_{POL}: Emission Factor for Pollutant (lb/hp-hr)

Appendix D

Polk County State Listed Species or Species of Special Concern

(This page intentionally left blank.)

County	Common Name	Scientific Name	Class	State Status	Federal Status
POLK	Bald Eagle	*Haliaeetus leucocephalus*	BIRDS	S	
POLK	Barn Owl	*Tyto alba*	BIRDS	E	
POLK	Henslow's Sparrow	*Ammodramus henslowii*	BIRDS	T	
POLK	King Rail	*Rallus elegans*	BIRDS	E	
POLK	Least Tern	*Sterna antillarum*	BIRDS	E	E
POLK	Long-eared Owl	*Asio otus*	BIRDS	T	
POLK	Northern Harrier	*Circus cyaneus*	BIRDS	E	
POLK	Red-shouldered Hawk	*Buteo lineatus*	BIRDS	E	
POLK	Blacknose Shiner	*Notropis heterolepis*	FISH	T	
POLK	Grass Pickerel	*Esox americanus*	FISH	T	
POLK	Western Sand Darter	*Ammocrypta clara*	FISH	T	
POLK	Creeper	*Strophitus undulatus*	FRESHWATER MUSSELS	T	
POLK	Pistolgrip	*Tritogonia verrucosa*	FRESHWATER MUSSELS	E	
POLK	Dion Skipper	*Euphyes dion*	INSECTS	S	
POLK	Regal Fritillary	*Speyeria idalia*	INSECTS	S	
POLK	Wild Indigo Dusky Wing	*Erynnis baptisiae*	INSECTS	S	
POLK	Zabulon Skipper	*Poanes zabulon*	INSECTS	S	
POLK	Northern Long-eared Bat	*Myotis septentrionalis*	MAMMALS		T
POLK	Plains Pocket Mouse	*Perognathus flavescens*	MAMMALS	E	
POLK	Southern Flying Squirrel	*Glaucomys volans*	MAMMALS	S	
POLK	Spotted Skunk	*Spilogale putorius*	MAMMALS	E	
POLK	Cliff Conobea	*Leucospora multifida*	PLANTS (DICOTS)	E	
POLK	Cream Violet	*Viola striata*	PLANTS (DICOTS)	S	
POLK	Earleaf Foxglove	*Tomanthera auriculata*	PLANTS (DICOTS)	S	
POLK	False Loosestrife	*Ludwigia peploides*	PLANTS (DICOTS)	S	
POLK	Hill's Thistle	*Cirsium hillii*	PLANTS (DICOTS)	S	
POLK	Pretty Dodder	*Cuscuta indecora*	PLANTS (DICOTS)	S	

County	Common Name	Scientific Name	Class	State Status	Federal Status
POLK	Toothcup	*Rotala ramosior*	PLANTS (DICOTS)	S	
POLK	Tunnel-formed Penstemon	*Penstemon tubiflorus*	PLANTS (DICOTS)	S	
POLK	Virginia Rockcress	*Sibara virginica*	PLANTS (DICOTS)	S	
POLK	Waxleaf Meadowrue	*Thalictrum revolutum*	PLANTS (DICOTS)	E	
POLK	Glomerate Sedge	*Carex aggregata*	PLANTS (MONOCOTS)	S	
POLK	Great Plains Ladies'-tresses	*Spiranthes magnicamporum*	PLANTS (MONOCOTS)	S	
POLK	Oval Ladies'-tresses	*Spiranthes ovalis*	PLANTS (MONOCOTS)	T	
POLK	Richardson Sedge	*Carex richardsonii*	PLANTS (MONOCOTS)	S	
POLK	Slender Sedge	*Carex tenera*	PLANTS (MONOCOTS)	S	
POLK	Small White Lady's Slipper	*Cypripedium candidum*	PLANTS (MONOCOTS)	S	
POLK	Western Prairie Fringed Orchid	*Platanthera praeclara*	PLANTS (MONOCOTS)	T	T
POLK	Blanding's Turtle	*Emydoidea blandingii*	REPTILES	T	
POLK	Bullsnake	*Pituophis catenifer sayi*	REPTILES	S	
POLK	Ornate Box Turtle	*Terrapene ornata*	REPTILES	T	
POLK	Slender Glass Lizard	*Ophisaurus attenuatus*	REPTILES	T	
POLK	Smooth Green Snake	*Liochlorophis vernalis*	REPTILES	S	

E= Endangered, T=Threatened, S=Special Concern

Appendix E

Iowa SHPO Consultation

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NATIONAL GUARD BUREAU
3501 FETCHET AVENUE
JOINT BASE ANDREWS 20762-5157

27 December 2021

Heather Gibb
Interim State Historic Preservation Officer
State Historical Building – 3rd Floor East
600 E. Locust St.
Des Moines, IA 50319

Dear Ms. Gibb,

Pursuant to Section 110 (54 U.S.C. 306101) of the National Historic Preservation Act (NHPA), as amended, which requires federal agencies to maintain and manage historic, archeological, architectural, and/or cultural value properties within their jurisdictional control, the National Guard Bureau (NGB) is providing for your review two Iowa state inventory forms and our determinations of eligibility as addenda to a 2003 Cultural Landscape Evaluation for the Des Moines Air National Guard Base completed by Engineering Environmental Management, Inc (R&C#030177098). At the time of the 2003 evaluation, Buildings 110 and 231 were not yet historic-age and were evaluated under Criterion Consideration G (Properties that Have Achieved Significance Within the Past Fifty Years). Iowa SHPO concurred with NGB determinations of not eligible under Criterion Consideration G for Buildings 110 and 231 in a letter dated 13 November 2003. According to the Air National Guard (ANG) Real Property Information Model, Buildings 110 and 231 have construction dates of 1961. Since they are now historic-age resources, ANG is evaluating the buildings under the criteria of the National Register of Historic Places (NRHP).

Historians at ANG determined Building 110 to be **not eligible** for inclusion into the NRHP. The 1961 brick veneer building is approximately 27,000 sq ft and features a renovated glass front entrance, a 906 sq ft addition, and a roof system composed of multiple elements (flat, shed, and false gable). Originally built to serve as a medical training facility, the building currently houses recruiting offices and a dining hall, in addition to the medical training facility. According to the Real Property Information Model, ANG replaced the building's windows in 1983, installed new doors leading to the dining facility and removed the existing exterior kitchen door in 1990, and renovated the entire front entrance of the building in 1998. On-base research conducted by historians from Engineering Environmental Management, Inc additionally noted that a 906 sq ft addition from 1995 now resides on the building's north façade.

Although ANG recognizes the building's date of construction as falling within the period of significance for Cold War Era resources, Building 110 is not a representative example that conveys the importance of Cold War era facilities at the local, state, or national level. In its current state, the resource is also not a representative example of Cold War Era military architecture and no longer reflects the design/construction aesthetics of the 1960s. As evidenced in its numerous renovations and alterations since the 1980s, the building has lost historic integrity of materials, workmanship, design, and feeling. Research conducted for the 2004 Cultural Landscape Evaluation determined no association between the base's standing structures and a person of local, state, or national significance. Building 110 has not yielded and is unlikely to yield information that adds to our understanding of local, regional, or national history and is therefore not eligible for inclusion in the NRHP under Criterion D. Therefore, Building 110 is determined not eligible under Criteria A, B, C, or D of the NRHP.

Historians at ANG also determined Building 231 to be **not eligible** for inclusion into the NRHP. The 1961 building features a T-shape plan with gables on the north and south ends and a hipped roof on

the west end. The footprint of the building is approximately 3000 sq ft. At the time of its construction in 1961, the resource housed the base Chaplain and offices. The present-day function and use of the building is a Chaplain's office and a disaster preparation facility. Originally clad in wood, Des Moines ANG replaced the siding with stucco in 2016.

Historians at ANG recognize the building's date of construction as falling within a period of significance for Cold War Era resources, but determined that the resource does not rise to a level of historical significance required under Criteria A, B, or C of the NRHP. The building does not exhibit important design and construction techniques and is not a good, representative example of Cold War architecture at a local, state, or national level. Research conducted for the 2004 Cultural Landscape Evaluation determined no association between the base's standing structures and a person of local, state, or national significance. The removal and replacement of the resource's original siding has negatively affected its historic integrity of materials, workmanship, and feeling. Building 231 has not yielded and is unlikely to yield information that adds to our understanding of local, regional, or national history and is therefore not eligible for inclusion in the NRHP under Criterion D.

Due to its historic and present-day function/use as a building for the base Chaplain, ANG also evaluated Building 231 under Criterion Consideration A of the NRHP and determined it not eligible. The base's significance rests in its history as a military facility and not as a religious site. According to information provided in the 2004 Cultural Landscape Evaluation, the building has shared its space with numerous other base offices since its construction 1961.

The National Guard Bureau and the Des Moines Air National Guard appreciate your time and effort in helping us fulfill our Section 110 responsibilities. Please provide any comments you may have to Jennifer Harty, Cultural Resources Program Manager, at jennifer.harty@us.af.mil.

Sincerely,

Jennifer L. Harty, GS13, DAF
Cultural Resources Program Manager

1 IDCA Site Forms
2 Location Map
3 Images
4 IA SHPO Letter (13 Nov 2003)

STATE **HISTORIC PRESERVATION** OFFICE OF IOWA
IOWA DEPARTMENT OF **CULTURAL AFFAIRS**

STATE HISTORIC PRESERVATION OFFICE
IOWA SITE INVENTORY
600 East Locust Street | Des Moines, IA 50319
(515) 281-8742 | Fax: (515) 282-0502
iowaculture.gov/history/preservation

State Inventory Number: _____ ☑ New ☐ Supplemental
9-Digit SHPO Review and Compliance (R&C) Number: 030177098 ☐ Non-Extant Year: _____

IOWA SITE INVENTORY FORM

Read the Iowa Site Inventory Form Instructions carefully, to ensure accuracy and completeness before completing this form. The instructions are available at http://www.iowahistory.org/historic-preservation/statewide-inventory-and-collections/iowa-site-inventory-form.html.

Basic Information

Historic Building Name: Building # 110
Other Names: Medical and Recruiting Offices / Dining Facilities
Street Address: Des Moines Air National Guard Base 3100 McKinley Ave
City: Des Moines ☐ Vicinity County: Polk State: IA ZIP: 50321

LEGAL DESCRIPTION

Rural

Township Name: _____
Township No.: _____
Range No.: _____
Section: _____
Quarter: _____ of _____

Urban

Subdivision: _____
Block(s): _____
Lot(s): _____

Classification

A. PROPERTY CATEGORY:

☑ Building(s)
☐ District
☐ Site
☐ Structure
☐ Object

B. NUMBER OF RESOURCES (WITHIN PROPERTY):

	If eligible property, enter number of: Contributing	If eligible property, enter number of: Noncontributing	If non-eligible property, enter number of:
Buildings			36
Sites			
Structures			
Objects			
Total			

C. STATUS OF PROPERTIES LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES ☐ Listed ☐ De-listed ☐ NHL ☐ NPS DOE

D. FOR PROPERTIES WITHIN A HISTORIC DISTRICT

☐ Property contributes to a National Register or local certified historic district.
☐ Property contributes to a **potential** historic district, based on professional historic/architectural survey and evaluation.
☐ Property does not contribute to the historic district in which it is located.

Historic District Name: _____ Historic District Site Number: _____

E. NAME OF RELATED PROJECT REPORT OR MULTIPLE PROPERTY STUDY (if applicable)

MPD Title: _____ Historical Architectural Database No. _____

Address: _____

City: _____ County: _____

Site Number: _____ District Number: _____

Function or Use

Enter categories (codes **and** terms) from the Iowa Site Inventory Form Instructions

A. HISTORIC FUNCTIONS

12C Medical Training Facility

B. CURRENT FUNCTIONS

12C Medical Training and Recruiting Offices / Dining Facilit

Description

A. ARCHITECTURAL CLASSIFICATION

01 No Style

B. MATERIALS

Foundation (visible exterior): _____

Walls (visible exterior): 03 Brick

Roof: _____

Other: _____

C. NARRATIVE DESCRIPTION ☑ **See continuation sheets which must be completed.**

Statement of Significance

A. APPLICABLE NATIONAL REGISTER OF HISTORIC PLACES CRITERIA (mark your opinion of eligibility after applying relevant National Register criteria)

Criterion A: Property is associated with significant events.	☐ Yes	■ No	☐ More research recommended
Criterion B: Property is associated with the lives of significant persons.	☐ Yes	☐ No	☐ More research recommended
Criterion C: Property has distinctive architectural characteristics.	☐ Yes	☐ No	☐ More research recommended
Criterion D: Property yields significant information in archaeology/history.	☐ Yes	☐ No	☐ More research recommended

B. SPECIAL CRITERIA CONSIDERATIONS (mark any special considerations; leave blank if none)

- ☐ A. Owned by a religious institution or used for religious purposes.
- ☐ B. Removed from its original location.
- ☐ C. A birthplace or grave.
- ☐ D. A cemetery
- ☐ E. A reconstructed building, object, or structure.
- ☐ F. A commemorative property.
- ☐ G. Property less than 50 years of page or achieved significance within the past 50 years.

C. AREAS OF SIGNIFICANCE (enter categories from instructions)

23 Military (Cold War Era)

D. PERIOD(S) OF SIGNIFICANCE

1961

E. SIGNIFICANT DATES

Construction Date: 1961

Other Dates (including renovations): 1983, 1990, 1998 (Renovations)

F. SIGNIFICANT PERSON (complete if Criterion B is marked above)

G. CULTURAL AFFILIATION (complete if Criterion D is marked above)

H. ARCHITECT/BUILDER

Architect: Unknown

Builder/Contractor: Unknown

I. NARRATIVE STATEMENT OF SIGNIFICANCE ☑ **See continuation sheets which must be completed.**

Address: Des Moines Air National Guard

City: Des Moines County: Polk

Site Number: District Number:

Bibliography

☑ **See continuation sheets to list research sources used in preparing this form.**

Geographic Data

OPTIONAL UTM REFERENCES

☐ See continuation sheet for additional UTM or comments

	Zone	Easting	Northing	NAD
1.				
2.				
3.				
4.				

Form Preparation

Name and Title: Mark Barron Date: 1-2-2022

Organization/Firm: Center for Environmental Management of Military Lands (CEMML) on behalf of National Guard Bureau (NGB)

Street Address:

City: Joint Base Andrews State: MD ZIP: 20762

Email: mbarron1@colostate.edu Telephone:

Additional Documentation

A. FOR ALL PROPERTIES, ATTACH THE FOLLOWING, AS SPECIFIED IN THE IOWA SITE INVENTORY FORM INSTRUCTIONS

1. Map of property's location within the community.
2. Glossy color 4x6 photos labeled on back with property/building name, address, date taken, view shown, and unique photo number.
3. Photo key showing each photo number on a map and/or floor plan, using arrows next top each photo number to indicate the location and directional view of each photograph.
4. Site plan of buildings/structures on site, identifying boundaries, public roads, and building/structure footprints.

B. FOR ALL STATE HISTORIC TAX CREDIT PART 1 APPLICATIONS, HISTORIC DISTRICTS AND FARMSTEADS, AND BARNS

See lists of special requirements and attachments in the Iowa Site Inventory Form Instructions.

State Historic Preservation Office (SHPO) Use Only

The SHPO has reviewed the Site Inventory and concurs with above survey opinion on National Register eligibility:

☐ Yes ☐ No ☐ More research recommended

☐ This is a locally designated property or part of a locally designated district.

Comments:

SHPO Authorized Signature: Date:

STATE HISTORIC PRESERVATION OFFICE OF IOWA
IOWA DEPARTMENT OF CULTURAL AFFAIRS

STATE HISTORIC PRESERVATION OFFICE
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(515) 281-8742 | Fax: (515) 282-0502
iowaculture.gov/history/preservation

IOWA SITE INVENTORY FORM – CONTINUATION SHEET

Name of Property: Building 110
Address: Des Moines Air National Guard
City: Des Moines County: Polk
Site Number:
Related District Number:

In a 13 November 2003 letter, Iowa SHPO concurred with a Cultural Resources Landscape Survey that Building 110 was not eligible for the NRHP. At that time, contracted historians evaluated the resource under Criterion Consideration G. In fulfillment of the National Guard Bureau's responsibility to maintain and manage historic-age resources within its jurisdictional control, we are updating our inventory and have evaluated Building 110 as a historic-age resource (50 years or older). The National Guard Bureau has determined Building 110 to be not eligible for the NRHP.

Building 110 is located west of the Des Moines Air National Guard's Gate 19 on McKinley Ave. The setting is a military installation with the Des Moines International Airport located directly south of the Guard base. As an aviation facility, the base has minimal vegetation. The base formed in 1946 and has continued operation to the present day.

The 1961 brick veneer building is approximately 27,000 sq ft and features a renovated glass front entrance, a 906 sq ft addition, and a roof system composed of multiple elements (flat, shed, and false gable). Originally built to serve as a medical training facility, the building currently houses recruiting offices and a dining hall, in addition to the medical training facility. According to the Real Property Information Model, ANG replaced the building's windows in 1983, installed new doors leading to the dining facility, removed the existing exterior kitchen door in 1990, and renovated the entire front entrance of the building in 1998. On-base research conducted by historians from Engineering Environmental Management, Inc additionally noted that a 906 sq ft addition from 1995 now resides on the building's north façade.

Although ANG recognizes the building's date of construction as falling within the period of significance for Cold War Era resources, Building 110 is not a representative example that conveys the importance of Cold War era facilities at the local, state, or national level. In its current state, the resource is also not a quality example of Cold War Era military architecture and no longer reflects the design/construction aesthetics of the 1960s. As evidenced in its numerous renovations and alterations since the 1980s, the building has lost historic integrity of materials, workmanship, design, and feeling. Research conducted for the 2004 Cultural Landscape Evaluation determined no association between the base's standing structures and a person of local, state, or national significance. Building 110 has not yielded and is unlikely to yield information that adds to our understanding of local, regional, or national history and is therefore not eligible for inclusion in the NRHP under Criterion D. Therefore, Building 110 is determined not eligible under Criteria A, B, C, or D of the NRHP.

Bibliography

Goodwin, R. Christopher and Associates, Inc.
1995 National Historic Context for Department of Defense Installations, 1790-1940. US Army Corps of Engineers, Baltimore MD. August 1995.

2002 Historic Context for Army Fixed-Wing Airfields 1903-1989 – Final Draft. US Army Environmental Center, Aberdeen Proving Ground, Maryland. January 2002.

Michael, Michelle and Adam Smith with Jennifer Sin
2011 The Architecture of the Department of Defense: A Military Style Guide, DoD Legacy Resource Management Program, Washington, D.C. 2011.

STATE **HISTORIC PRESERVATION** OFFICE OF IOWA
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IOWA SITE INVENTORY FORM

Read the Iowa Site Inventory Form Instructions carefully, to ensure accuracy and completeness before completing this form. The instructions are available at http://www.iowahistory.org/historic-preservation/statewide-inventory-and-collections/iowa-site-inventory-form.html.

Basic Information

Historic Building Name: Building 231
Other Names: Chapel and Offices (Historic) / Chaplain and Disaster Preparedness (Present-Day)
Street Address: Des Moines Air National Guard Base
City: Des Moines ☐ Vicinity County: Polk State: IA ZIP: 50321

LEGAL DESCRIPTION

Rural
Township Name: _____
Township No.: _____
Range No.: _____
Section: _____
Quarter: _____ of _____

Urban
Subdivision: _____
Block(s): _____
Lot(s): _____

Classification

A. PROPERTY CATEGORY:
☑ Building(s)
☐ District
☐ Site
☐ Structure
☐ Object

B. NUMBER OF RESOURCES (WITHIN PROPERTY):

	If eligible property, enter number of: Contributing	If eligible property, enter number of: Noncontributing	If non-eligible property, enter number of:
Buildings			36
Sites			
Structures			
Objects			
Total			

C. STATUS OF PROPERTIES LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES ☐ Listed ☐ De-listed ☐ NHL ☐ NPS DOE

D. FOR PROPERTIES WITHIN A HISTORIC DISTRICT

☐ Property contributes to a National Register or local certified historic district.
☐ Property contributes to a **potential** historic district, based on professional historic/architectural survey and evaluation.
☐ Property does not contribute to the historic district in which it is located.

Historic District Name: _____ Historic District Site Number: _____

E. NAME OF RELATED PROJECT REPORT OR MULTIPLE PROPERTY STUDY (if applicable)

MPD Title: _____ Historical Architectural Database No. _____

Address: _____

City: _____ County: _____

Site Number: _____ District Number: _____

Function or Use

Enter categories (codes **and** terms) from the Iowa Site Inventory Form Instructions

A. HISTORIC FUNCTIONS

12C Military Facility

06A Religious Facility

B. CURRENT FUNCTIONS

12C Military Facility

Description

A. ARCHITECTURAL CLASSIFICATION

01 No Style

B. MATERIALS

Foundation (visible exterior): _____

Walls (visible exterior): Stucco

Roof: Asphalt Shingle

Other: _____

C. NARRATIVE DESCRIPTION ☑ **See continuation sheets which must be completed.**

Statement of Significance

A. APPLICABLE NATIONAL REGISTER OF HISTORIC PLACES CRITERIA (mark your opinion of eligibility after applying relevant National Register criteria)

Criterion A: Property is associated with significant events.	☐ Yes	■ No	☐ More research recommended
Criterion B: Property is associated with the lives of significant persons.	☐ Yes	☐ No	☐ More research recommended
Criterion C: Property has distinctive architectural characteristics.	☐ Yes	☐ No	☐ More research recommended
Criterion D: Property yields significant information in archaeology/history.	☐ Yes	☐ No	☐ More research recommended

B. SPECIAL CRITERIA CONSIDERATIONS (mark any special considerations; leave blank if none)

- ☑ A. Owned by a religious institution or used for religious purposes.
- ☐ B. Removed from its original location.
- ☐ C. A birthplace or grave.
- ☐ D. A cemetery
- ☐ E. A reconstructed building, object, or structure.
- ☐ F. A commemorative property.
- ☐ G. Property less than 50 years of page or achieved significance within the past 50 years.

C. AREAS OF SIGNIFICANCE (enter categories from instructions)

23 Military (Cold War Era)

D. PERIOD(S) OF SIGNIFICANCE

1961

E. SIGNIFICANT DATES

Construction Date: 1961

Other Dates (including renovations): 2016 (Siding Replacement)

F. SIGNIFICANT PERSON (complete if Criterion B is marked above)

G. CULTURAL AFFILIATION (complete if Criterion D is marked above)

H. ARCHITECT/BUILDER

Architect: Unknown

Builder/Contractor: _____

I. NARRATIVE STATEMENT OF SIGNIFICANCE ☑ **See continuation sheets which must be completed.**

Address: _____

City: _____ County: _____

Site Number: _____ District Number: _____

Bibliography

☑ **See continuation sheets to list research sources used in preparing this form.**

Geographic Data

OPTIONAL UTM REFERENCES

☐ See continuation sheet for additional UTM or comments

	Zone	Easting	Northing	NAD
1.				
2.				
3.				
4.				

Form Preparation

Name and Title: Mark Barron Date: 1-3-2022

Organization/Firm: Center for Environmental Management of Military Lands on behalf of National Guard Bureau

Street Address: _____

City: Joint Base Andrews State: MD ZIP: 20762

Email: mbarron1@colostate.edu Telephone: 515-735-5034

Additional Documentation

A. FOR ALL PROPERTIES, ATTACH THE FOLLOWING, AS SPECIFIED IN THE IOWA SITE INVENTORY FORM INSTRUCTIONS

1. Map of property's location within the community.
2. Glossy color 4x6 photos labeled on back with property/building name, address, date taken, view shown, and unique photo number.
3. Photo key showing each photo number on a map and/or floor plan, using arrows next top each photo number to indicate the location and directional view of each photograph.
4. Site plan of buildings/structures on site, identifying boundaries, public roads, and building/structure footprints.

B. FOR ALL STATE HISTORIC TAX CREDIT PART 1 APPLICATIONS, HISTORIC DISTRICTS AND FARMSTEADS, AND BARNS

See lists of special requirements and attachments in the Iowa Site Inventory Form Instructions.

State Historic Preservation Office (SHPO) Use Only

The SHPO has reviewed the Site Inventory and concurs with above survey opinion on National Register eligibility:

☐ Yes ☐ No ☐ More research recommended

☐ This is a locally designated property or part of a locally designated district.

Comments:

SHPO Authorized Signature:_____Date: _____

STATE HISTORIC PRESERVATION OFFICE OF IOWA
IOWA DEPARTMENT OF CULTURAL AFFAIRS

STATE HISTORIC PRESERVATION OFFICE
IOWA SITE INVENTORY
600 East Locust Street | Des Moines, IA 50319
(515) 281-8742 | Fax: (515) 282-0502
iowaculture.gov/history/preservation

IOWA SITE INVENTORY FORM – CONTINUATION SHEET

Name of Property: Building 231
Address: Des Moines Air National Guard Base
City: Des Moines County: Polk
Site Number:
Related District Number:

In a 13 November 2003 letter, Iowa SHPO concurred with a Cultural Resources Landscape Survey that Building 231 was not eligible for the NRHP. At that time, contracted historians evaluated the resource under Criterion Consideration G. In fulfillment of the National Guard Bureau's responsibility to maintain and manage historic-age resources within its jurisdictional control, we are updating our inventory and have evaluated Building 231 as a historic-age resource (50 years or older). The National Guard Bureau has determined Building 231 to be not eligible for the NRHP.

Building 231 is located west of the Des Moines Air National Guard's Gate 19 on McKinley Ave. The setting is a military installation with the Des Moines International Airport located directly south of the Guard base. As an aviation facility, the base has minimal vegetation. The base formed in 1946 and has continued operation to the present day.

The 1961 building features a T-shape plan with gables on the north and south ends and a hipped roof on the west end. The footprint of the building is approximately 3000 sq ft. At the time of its construction in 1961, the resource housed the base Chaplain and offices. The present-day function and use of the building is a Chaplain's office and a disaster preparation facility. Originally clad in wood, Des Moines ANG replaced the siding with stucco in 2016.

Historians at ANG recognize the building's date of construction as falling within a period of significance for Cold War Era resources, but determined that the resource does not rise to a level of historical significance required under Criteria A, B, or C of the NRHP. The building does not exhibit important design or construction techniques and is not a good, representative example of Cold War architecture at a local, state, or national level. Research conducted for the 2004 Cultural Landscape Evaluation determined no association between the base's standing structures and a person of local, state, or national significance. The removal and replacement of the resource's original siding has negatively affected its historic integrity of materials, workmanship, and feeling. Building 231 has not yielded and is unlikely to yield information that adds to our understanding of local, regional, or national history and is therefore not eligible for inclusion in the NRHP under Criterion D.

Due to its historic and present-day function/use as a building for the base Chaplain, ANG also evaluated the resource under Criterion Consideration A of the NRHP and determined it not eligible. The base's significance rests in its history as a military facility and not as a religious site. According to information provided in the 2004 Cultural Landscape Evaluation, the building has shared its space with numerous other base offices since its construction 1961.

Bibliography

Goodwin, R. Christopher and Associates, Inc.
1995 National Historic Context for Department of Defense Installations, 1790-1940. US Army Corps of Engineers, Baltimore MD. August 1995.

2002 Historic Context for Army Fixed-Wing Airfields 1903-1989 – Final Draft. US Army Environmental Center, Aberdeen Proving Ground, Maryland. January 2002.

Michael, Michelle and Adam Smith with Jennifer Sin
2011 The Architecture of the Department of Defense: A Military Style Guide, DoD Legacy Resource Management Program, Washington, D.C. 2011.

From: noreply@salesforce.com <noreply@salesforce.com> on behalf of Sara Andre <sara.andre@iowa.gov>
Sent: Friday, February 18, 2022 3:31 PM
To: rolf.osteraas.1@us.af.mil <rolf.osteraas.1@us.af.mil>
Cc: Barron,Mark <Mark.Barron@colostate.edu>; shpo106@iowa.gov <shpo106@iowa.gov>
Subject: R&C 220177435 - - Polk - Section 110 Inventory

**** Caution: EXTERNAL Sender ****

We have received your submittal for the above referenced federal undertaking. We provide the following response in accordance with Section 106 of the National Historic Preservation Act of 1966 and its implementing regulations 36 CFR 800.

Regarding this project, please see the following comments:

R&C 220177435 - - Polk - Section 110 Inventory - Pursuant to Section 110 (54 U.S.C. 306101) of the National Historic Preservation Act (NHPA), as amended, which requires federal agencies to maintain and manage historic, archeological, architectural, and/or cultural value properties within their jurisdictional control, the National Guard Bureau (NGB) is providing for your review two Iowa state inventory forms and our determinations of eligibility as addenda to a 2003 Cultural Landscape Evaluation for the Des Moines Air National Guard Base completed by Engineering Environmental Management, Inc (R&C#030177098). At the time of the 2003 evaluation, **Buildings 110 and 231** were not yet historic-age and were evaluated under Criterion Consideration G (Properties that Have Achieved Significance Within the Past Fifty Years). Iowa SHPO concurred with NGB determinations of not eligible under Criterion Consideration G for Buildings 110 and 231 in a letter dated 13 November 2003. According to the Air National Guard (ANG) Real Property Information Model, Buildings 110 and 231 have construction dates of 1961. Since they are now historic-age resources, ANG is evaluating the buildings under the criteria of the National Register of Historic Places (NRHP).

- Thank you for providing our office an opportunity to comment on the above-referenced Iowa Site Inventory Forms for building 110 and 231. We understand that the forms were submitted to our office in compliance with Section 110 of the National Historic Preservation Act.
- We concur with the recommendations that Building 110 Building 231 are not eligible for listing in the National Register of Historic Places.

You will not receive a hard copy of this email. It is the submitter's responsibility to maintain the official file of record. If you have any questions or comments, please feel free to contact our office.

Kind regards,

Sara André
Architectural Historian
State Historic Preservation Office
sara.andre@iowa.gov | 515-242-6157 | iowaculture.gov

Iowa Arts Council | Produce Iowa | State Historical Society of Iowa

Iowa Department of Cultural Affairs

Iowa DCA/SHPO community

- Close Window
- Print This Page
- Expand All | Collapse All

Case: 00035061

Agency Information

Agency Name/Company	National Guard Bureau / Air National Guard
Lead Agency	☑
Consultant	☐
Other Agencies	Air National Guard
Additional CC Emails	rolf.osteraas.1@us.af.mil

Contact Information - If your information has changed, please update.

Contact Name	Mark Barron	**Address1**	3501 Fetchet Ave
Contact Phone	515-735-5034	**Address2**	
Contact Email	mark.barron.2.ctr@us.af.mil	**City**	Joint Base Andrews
CC Email		**State**	MD
		Zip	20762

Project Information

R&C Number	030177098	**Agency Project Number**	
Regulatory Authority	Federal	**Resource Type**	Both
Project Applicant	National Guard Bureau / Air National Guard	**Project Acreage**	
Project Title	Des Moines ANGB IDP Project	**Project Summary**	The National Guard Bureau (NGB) is proposing to provide the 132d Wing (132 WG) of the Iowa Air National Guard (ANG) at Des Moines Air National Guard Base (ANGB) in Des Moines, Iowa with properly sized and configured facilities, infrastructure, and services as outlined in an Installation Development Plan (IDP). The proposed construction and renovation projects as well as the demolition of excess and inefficient structures would conserve energy and resources through consolidation and modernization that are needed to enable Des Moines ANGB to maintain the level of readiness necessary to support its mission.
Project Address	Des Moines ANGB 3100 McKinley Ave, Des Moines, IA 50321	**Project City**	Des Moines
County	Polk	**Project Section**	
Additional Counties		**Project Township**	
		Project Range	

Project Documents

From: noreply@salesforce.com <noreply@salesforce.com> **On Behalf Of** Sara Andre
Sent: Tuesday, June 7, 2022 12:00 PM
To: OSTERAAS, ROLF G GS-12 NG 132 MDG/SGPB <rolf.osteraas.1@us.af.mil>
Cc: shpo106@iowa.gov; daniel.higginbottom@iowa.gov
Subject: [Non-DoD Source] R&C 030177098 - - Polk - Des Moines ANGB IDP Project

We have received your submittal for the above referenced federal undertaking. We provide the following response in accordance with Section 106 of the National Historic Preservation Act of 1966 and its implementing regulations 36 CFR 800.

Regarding this project, please see the following comments:

R**&C 030177098 - - Polk - Des Moines ANGB IDP Project - The National Guard Bureau (NGB) is proposing to provide the 132d Wing (132 WG) of the Iowa Air National Guard (ANG) at Des Moines Air National Guard Base (ANGB) in Des Moines, Iowa** with properly sized and configured facilities, infrastructure, and services as outlined in an Installation Development Plan (IDP). The proposed construction and renovation projects as well as the demolition of excess and inefficient structures would conserve energy and resources through consolidation and modernization that are needed to enable Des Moines ANGB to maintain the level of readiness necessary to support its mission.

- Concur with the federal agency and/or their designated representative (No Historic Properties Affected - No Effect)

You will not receive a hard copy of this email. It is the submitter's responsibility to maintain the official file of record. If you have any questions or comments, please feel free to contact our office.

Kind regards,

Sara André
Architectural Historian
State Historic Preservation Office
sara.andre@iowa.gov | 515-242-6157 | iowaculture.gov

Iowa Arts Council | Produce Iowa | State Historical Society of Iowa

Iowa Department of Cultural Affairs

Type of materials included in submission	Letters; Maps; Project Plans; Site Plans
Historic Site Inventory Forms	
Reports	

Determination of Effect

Applicant Comments	
Agency Determination	No Historic Properties Affected - No Effect

SHPO Comment

Status	Closed
SHPO Comment	Concur
SHPO Response	
Date/Time Opened	4/26/2022 1:00 PM
Submitted Date	6/7/2022
Days Open for Review	0.00
30 Day Date	7/7/2022