

# **SOUTH CENTRAL REGIONAL AIRPORT – IOWA**

**AIP NUMBER 3-19-0136-001-2013**

## **ENVIRONMENTAL ASSESSMENT (EA) FOR REPLACEMENT AIRPORT**

- ACQUIRE PROPERTY FOR REPLACEMENT AIRPORT
- DISCONNECT 220TH STREET / CONSTRUCT NEW AIRPORT
- FEDERAL RELEASE / CLOSE PELLA MUNICIPAL AIRPORT
- FEDERAL RELEASE / CLOSE OSKALOOSA MUNICIPAL AIRPORT

**PREPARED BY:  
SOUTH CENTRAL REGIONAL AIRPORT AGENCY (SCRAA)  
CITY OF OSKALOOSA    MAHASKA COUNTY    CITY OF PELLA**

**October 2016**

This environmental assessment becomes a Federal document when evaluated, signed and dated by the Responsible Federal Aviation Administration (FAA) Official.

\_\_\_\_\_  
Responsible FAA Official

\_\_\_\_\_  
Date



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## **SECTION ONE**

**Purpose and Need**



## **SECTION ONE: PURPOSE AND NEED**

### **1.1 Requirements For Environmental Assessment (EA)**

This EA has been prepared in compliance with requirements set forth in the National Environmental Policy Act of 1969, as amended, the regulations of the President's Council on Environmental Quality (CEQ) for NEPA compliance, and Federal Aviation Administration (FAA) Orders 1050.1F (*Environmental Impacts: Policies and Procedures*) and 5050.4B (*National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*).

FAA Order 5050.4B refers to federal environmental requirements outside NEPA as "special purpose laws" (federal laws, regulations, executive orders, or departmental orders, i.e. Section 106, Section 303(c) or 4(f), Section 6(f), Section 7 of the ESA, Floodplains, etc.). FAA Order 5050.4B states the FAA must comply with these special purpose laws before FAA may approve a proposed federal action. FAA Order 1050.1F, Appendix A, provides more information on these special purpose laws and how to address their requirements.

### **1.2 Purpose And Need**

#### ***1.2.1 Purpose***

A new airport location and improvements that meet minimum standards as described in FAA AC 150/5300-13A *Airport Design* is needed for the purpose of accommodating operations by large (more than 12,500 pounds maximum certificated take off weight) aircraft (Group C-II) on a regular basis safely and efficiently.

The Pella Replacement Airport Feasibility Study concluded that the existing Pella Municipal Airport could not accommodate large approach Category C-II airplanes on a regular basis nor could the existing airport site support visibility minimums as low as ½ - mile and a decision height as low as 200-feet above ground level.

The Oskaloosa Municipal Airport was initially developed as an auxiliary field to the Ottumwa Naval Air Station. The site is not geographically located where it can accommodate aeronautical activity efficiently or provide a sustained level of aeronautical services.

The 2010 Iowa Aviation System Plan recognized the need to combine the service areas of the Pella and Oskaloosa Municipal airports and recommended development of a regional airport (Red Rock).

The proposed airport would replace the existing Pella Municipal Airport and the Oskaloosa Municipal Airport. The two (2) public owned airport locations (shown in Figure E-4 of Appendix E) will be closed at the time the proposed airport becomes operational.

### ***1.2.2 Need***

Neither of the two (2) existing airports can provide facilities and services that can accommodate existing and forecast aeronautical activity safely and efficiently. The forecast of aviation activity was approved by FAA on October 26, 2014 (see Appendix D - Forecast of Aviation Activity).

Past studies have documented site constraints associated with the existing Pella Municipal Airport that inhibit the ability of the airport to physically expand to accommodate aeronautical activities. These constraints include:

- Runway 16 and 34 threshold currently displaced 500 feet each end in order to provide runway safety area, runway object free area, and approach surfaces.
- The existing runway orientation and location of the Iowa Highway 163/ Washington Interchange, along with existing land uses limit the ability to extend RW 16 and provide for lower approach minimums.
- Existing residential development and recreation facilities together with Idaho Drive limit the ability to extend RW 34 (see Figure 3-11).
- The existing airport geometry does not provide the required seperational distance between RW 16/34, Future parallel taxiway and existing terminal buildings.
- The existing site prohibits the development of lower instrument approach minimums due to the runway protection zone requirements (roadways, concentrations of people) associated with lower minimums.
- Airport compatibility with surrounding residential land uses.
- The existing site cannot accommodate the development of a crosswind runway longer than 3,200 feet due to existing topography and land use (roadways, residential and commercial development).

An assessment of the existing Pella Municipal Airport concluded that the cost to develop a “Limited Build” Airport Reference Code (ARC) C-II facility would be comparable to the cost associated with a “Full Build” ARC C-II airport at an alternative airport location.

A “Limited Build” scenario is defined as one or more proposed improvements that when completed will accommodate some of the aeronautical activity (Need) but not all. A “Limited Build” scenario may be considered where there are no reasonable alternatives. The “Build Alternative” is one or more proposed actions (improvements) that will accommodate current and forecast aeronautical activity on a regular basis safely and efficiently.

The airport service area associated with the Oskaloosa Municipal Airport is constrained by its proximity to the Ottumwa Airport and distance from Pella. While the airport presently serves small airplanes, it cannot accommodate large airplane traffic generated within the service area. Additionally, the airport cannot sustain the delivery of aeronautical services because facilities needed to

accommodate and service large airplanes are not available. Furthermore, the airport is not geographically located to serve the combined (Pella/Oskaloosa) service areas (see Figure 4-2 and E-4).

Additional Information is summarized in Appendix E Background Summary: Airport Role – Federal and State Aviation System. Reference may also be made to the following documents:

- 2010 Iowa Aviation System Plan
- Pella Airport 2010 Feasibility Study
- Airport Master Plan – South Central Regional Airport

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## **SECTION TWO**

**Proposed Action**



## **SECTION TWO: PROPOSED ACTION**

### **2.1 Proposed Action**

The proposed actions will require the ultimate acquisition of 582 acres of land to provide for the development of an airport to accommodate large approach category C-II airplanes on a regular basis.

The proposed development includes the following actions:

1. Acquire 582 acres of land in fee title.
2. Disconnect County Road - 220<sup>th</sup> Street.
3. Construct primary runway (Runway 14/32), concrete paved 100 feet in width and 6,700 feet in length.
4. Equip the primary runway with high intensity threshold and edge lights, visual guidance slope indicator lights, and lighted wind indicators.
5. Construct a full parallel taxiway, 35 feet in width, to serve the primary runway, install taxiway edge lights and install airfield guidance signage.
6. Construct terminal apron to accommodate 18 airplanes.
7. Construct vehicle access from Iowa Highway 163 via 220<sup>th</sup> Street to the terminal building and aircraft hangar facilities.
8. Construct terminal building.
9. Construct Fixed Base Operator (FBO) maintenance facility.
10. Construct aircraft storage facilities for 52 aircraft.
11. Install above ground fuel storage tanks and dispensing unit.
12. Provide water, sanitary sewer, electrical and communication services.
13. Install airport rotating beacon light and Automated Weather Observing System (AWOS).
14. Remove trees and other obstructions, and install perimeter and security fencing.
15. Rough grade crosswind runway (Runway 10/28), 120 feet in width and 4,380 feet in length (paving and lighting crosswind runway is anticipated 10+ years).
16. Develop new Instrument Approach Procedures to Runways 14 and 32.
17. Install approach light system (MALSR) on Runway 32.
18. Close the existing Pella Municipal Airport, dispose of airport assets and convert existing site to non-aeronautical uses.
19. Close the existing Oskaloosa Municipal Airport, dispose of airport assets and convert existing site to non-aeronautical uses.

Figure 2-1 shows the Area of Potential Effect (APE) and the proposed development. The Area of Potential Effect is represented by the proposed property acquisition and properties immediately surrounding the new proposed regional airport. The APE also includes the existing boundaries associated with the two existing public owned airports (see Figures 2-2 and 2-3).

The proposed actions are shown on the Airport Layout Plan (ALP) that was given conditional approval by the FAA on March 4, 2015 (see Appendix E).

## 2.2 Development Phases

### 2.2.1 Phase One (2016-2023)

The first phase of development includes:

- Acquisition of 582 acres of land for the purpose of constructing airport improvements shown on the Airport Layout Plan (ALP). The land acquisition process is expected to extend over a four (4) year period (2016-2019).
- Design and construction of Runway 14/32 and parallel Taxiway A. The phased construction is expected to extend over a multi-year period. Proposed is a runway 100 feet in width and constructed to an ultimate length of 6,700 feet. The runway and parallel taxiway pavement will be designed to accommodate a 60,000 pound dual wheel loading. High intensity runway threshold and edge lights are proposed for installation. Runway 14/32 will also be equipped with Runway End Identifier Light (REIL) units and Precision Approach Path Indicator (PAPI) lights. Taxiway A will also be equipped with edge lights. Pavement markings and airfield guidance signage will also be implemented.
- Terminal Area: Grading and drainage improvements within the terminal area will commence at the same time grading and drainage improvements associated with Runway 14/32 and Taxiway A are initiated. Proposed is the construction of a terminal building, Fixed Base Operation (FBO) facility, fuel facilities (Jet A and 100LL), aircraft storage for 52 aircraft, vehicle access and parking facilities, aircraft parking apron, airport ground equipment storage facility, electrical vault building, security fencing and utility infrastructure improvements.
- A rotating beacon light and Automated Weather Observing System (AWOS) is proposed for construction.
- Development of a new instrument approach procedure (Visibility minimum as low as ½ statute mile and 200 foot decision height for Runway 32), (Visibility minimum as low as ¾ statute mile, 250 foot decision height for Runway 14).

The intent of Phase One improvements is to provide an operational airport. The existing Pella Municipal Airport (see Figure 2-2) and Oskaloosa Municipal Airport (see Figure 2-3) will be closed.

The closure of the existing Pella Municipal Airport and Oskaloosa Municipal Airport would eliminate the airport environmental footprint associated with each of these airport facilities. While the proposed development of the new airport would create a new airport environmental footprint, the following facilities will be reduced:

- Existing and planned runways would be reduced from four (4) existing to two (2) proposed.
- Obligated airport land would be reduced from 729 acres existing to 582 acres proposed.

- Fuel storage facilities would be reduced from two (2) locations to one (1) location.
- Potential impacts to biotic resources would be reduced from two (2) locations to one (1) location.
- The proposed new airport site is centrally located within the combined Pella and Oskaloosa Airport Service areas, thereby reducing travel distance.
- Airport operating costs (snow removal, grounds maintenance, and energy usage) would be reduced, thereby reducing energy consumption and the need for airfield maintenance equipment.

The closure will provide the opportunity to:

- Develop land uses that are compatible with adjacent land uses.
- Provide a “critical mass” that would sustain the delivery of aeronautical services.
- Reduce the financial burden of maintaining two (2) public owned airport facilities.
- Accommodate aeronautical demand generated within the combined airport service areas.
- Utilize existing obligated airport assets to develop the replacement airport.

### ***2.2.2 Phase Two (2024-2025)***

Phase Two is intended to complement improvements made in Phase One.

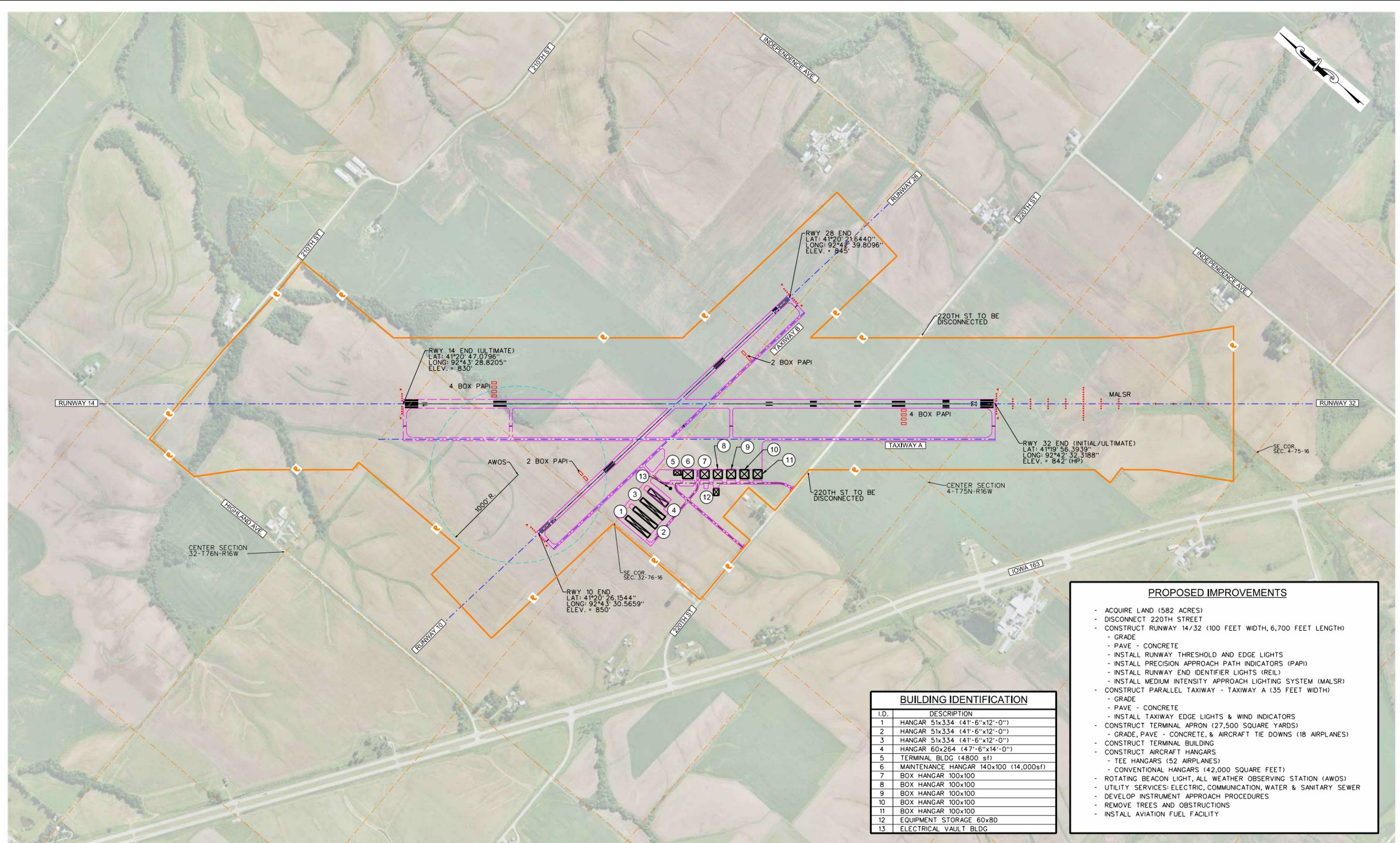
- Provide all weather surface on 220<sup>th</sup> Street (Iowa Highway 163 – Terminal Area).
- Install Medium Intensity Approach Light System (MALSR), provided a favorable benefit/cost determination is made.
- Complete phased construction associated with Runway 14/32 and Taxiway A.

### ***2.2.3 Phase Three (2026-2035)***

Phase Three provides the development of the crosswind runway (Runway 10/28).

- Design and construction of Runway 10/28 to an ultimate length of 3,400 feet. The runway, 60 feet in width, would be equipped with medium intensity threshold and runway edge lights. Runway End Identifier Light (REIL) units and Precision Approach Path Indicator (PAPI) lights are proposed for installation on Runways 10 and 28.
- A full taxiway (Taxiway B) is recommended. The taxiway (35 feet in width) should be designed to accommodate small airplanes with a wingspan under 49 feet.
- The runway and taxiway pavement should be designed to accommodate an airplane with a gross landing or takeoff weight under 12,500 pounds.
- Additional aircraft storage and associated taxiways may be constructed in response to aeronautical demand.

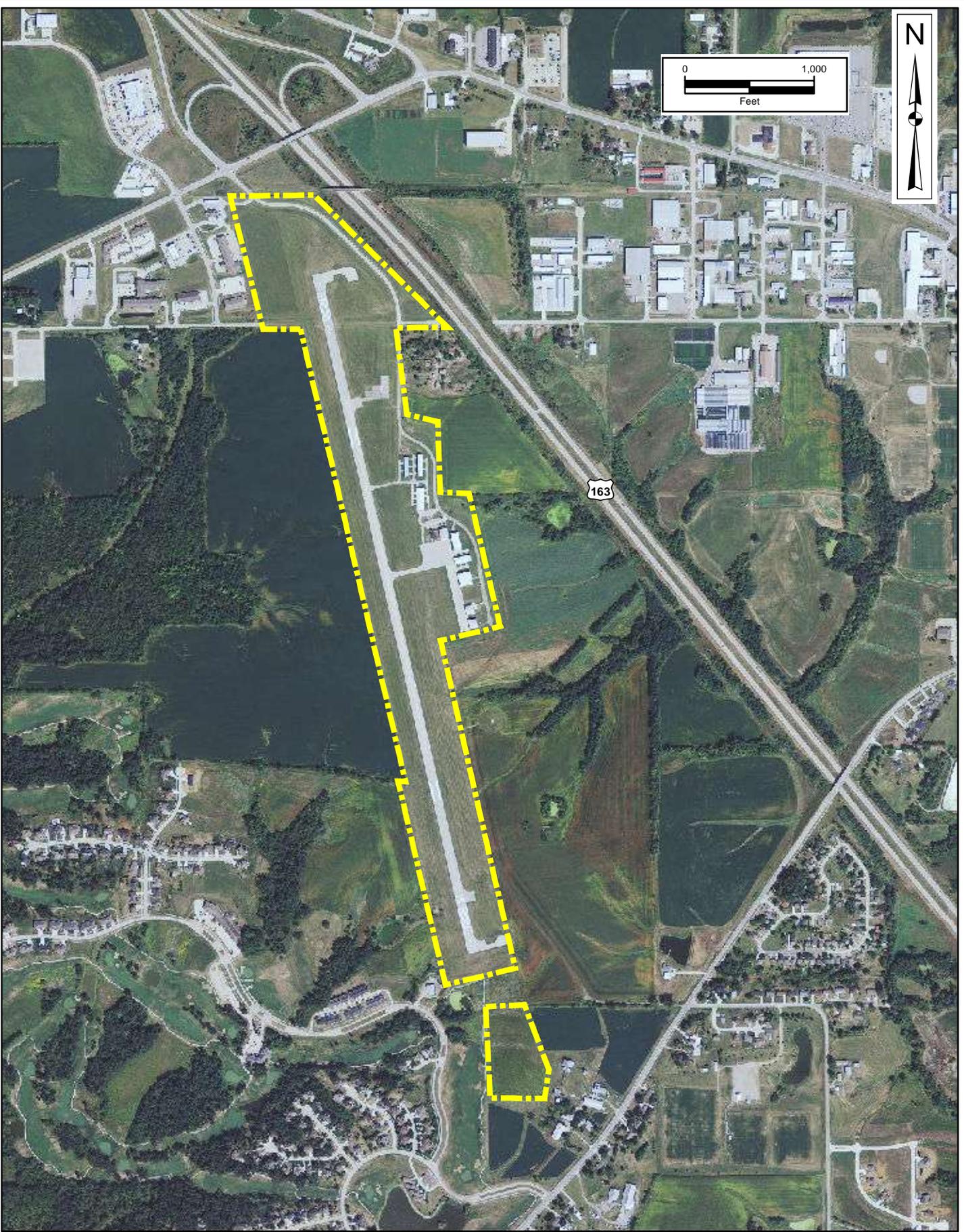
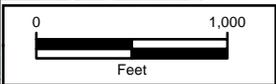
The proposed actions meet the project purpose and need described in Section 1.2 and the minimum standards as described in *FAA AC 150/5300-13A – Airport Design*.



BUILDING IDENTIFICATION	
I.D.	DESCRIPTION
1	HANGAR 51x334 (41'-6"x12'-0")
2	HANGAR 51x334 (41'-6"x12'-0")
3	HANGAR 51x334 (41'-6"x12'-0")
4	HANGAR 60x264 (47'-6"x14'-0")
5	TERMINAL BLDG (4800 sf)
6	MAINTENANCE HANGAR 140x100 (14,000sf)
7	BOX HANGAR 100x100
8	BOX HANGAR 100x100
9	BOX HANGAR 100x100
10	BOX HANGAR 100x100
11	BOX HANGAR 100x100
12	EQUIPMENT STORAGE 60x80
13	ELECTRICAL VAULT BLDG

- PROPOSED IMPROVEMENTS**
- ACQUIRE LAND (582 ACRES)
  - DISCONNECT 220TH STREET
  - CONSTRUCT RUNWAY 14/32 (100 FEET WIDTH, 6,700 FEET LENGTH)
    - GRADE
    - PAVE - CONCRETE
    - INSTALL RUNWAY THRESHOLD AND EDGE LIGHTS
    - INSTALL PRECISION APPROACH PATH INDICATORS (PAPI)
    - INSTALL RUNWAY END IDENTIFIER LIGHTS (REIL)
    - INSTALL MEDIUM INTENSITY APPROACH LIGHTING SYSTEM (MALSR)
  - CONSTRUCT PARALLEL TAXIWAY - TAXIWAY A (35 FEET WIDTH)
    - GRADE
    - PAVE - CONCRETE
    - INSTALL TAXIWAY EDGE LIGHTS & WIND INDICATORS
  - CONSTRUCT TERMINAL APRON (27,500 SQUARE YARDS)
    - GRADE, PAVE - CONCRETE, & AIRCRAFT TIE DOWNS (18 AIRPLANES)
  - CONSTRUCT TERMINAL BUILDING
  - CONSTRUCT AIRCRAFT HANGARS
    - TEE HANGARS (52 AIRPLANES)
    - CONVENTIONAL HANGARS (42,000 SQUARE FEET)
  - ROTATING BEACON LIGHT, ALL WEATHER OBSERVING STATION (AWOS)
  - UTILITY SERVICES: ELECTRIC, COMMUNICATION, WATER & SANITARY SEWER
  - DEVELOP INSTRUMENT APPROACH PROCEDURES
  - REMOVE TREES AND OBSTRUCTIONS
  - INSTALL AVIATION FUEL FACILITY





JS Consulting LLC

SOUTH CENTRAL REGIONAL AIRPORT  
MAHASKA COUNTY, IOWA  
PELLA MUNICIPAL AIRPORT (PEA)  
PROPERTY

FIGURE

2-2



