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Executive Summary

Nephi Municipal Airport Master Plan Update

Nephi Municipal Airport is a vital part of the national airport system, as well as an integral component of the Utah Continuous Airport System Plan (UCASP) within the State of Utah. According to the UCASP, the Airport is a designated General Aviation Regional Airport, and represents a vital and significant regional economic asset. Since the last master planning study of airport facilities was completed in 1995, aviation issues on a local, regional, and national level have changed dramatically. The re-evaluation of these issues in the current Master Plan Update requires a thorough understanding of existing regional aviation needs, and the vision to anticipate how they will continue to evolve moving forward in an ever-changing global economy.

This Airport Master Plan Update is intended to provide a comprehensive evaluation of the Airport and include the formulation of a long-range physical development plan for the facility. The primary goal is the continued improvement of the Airport in a manner that can efficiently accommodate potential demand, is financially attainable, and that is appropriate in consideration of its surroundings.

The preparation of the Master Plan Update has been conducted under the direction of Nephi City staff with financial assistance from the Federal Aviation Administration (FAA) and the Utah Department of Transportation (UDOT) Division of Aeronautics. Like any long-term development plan, the Airport's master plan should reserve space for potential facilities (including industrial development and associated businesses). However, those potential future facilities for which a site has been reserved are only constructed when actual demand occurs. Thus, the Airport Master Plan Update is not a decision document on whether or not an improvement will be built; it is a planning tool that indicates how the property at the Airport might best be used in consideration of anticipated future demand.

The proposed long-term development plan for the Airport is described in the following paragraphs and is graphically depicted in the figure, entitled *CONCEPTUAL AIRPORT DEVELOPMENT PLAN*, at the end of this document.

Development Considerations

The various aircraft types projected to be used at Nephi Municipal Airport, during the next 20 years, are to reflect a growing percentage of turbine-powered aircraft. This category of predominately “business-use” aircraft are projected to grow from the current 44.5% of total general aviation operations to 52.5% by the end of the planning period. In addition, military operations, which are represented by training operations by Utah National Guard Helicopters, are projected to increase from 14.2% to 39.8% of total operations through the planning period. Overall, the number of annual aircraft operations (both landings and takeoffs) at the Airport is forecasted to increase from approximately 7,040 in 2008 to just over 20,112 by the end of the 20-year planning period encompassed in the Master Plan Update. Also of significance is the fact that the number of based aircraft at the Airport is forecasted to double over the next two decades, from a base year count of 10 aircraft in 2008 to 20 aircraft in 2028.

Development Recommendations

Following an examination of several alternatives, a recommended development plan was determined. The recommended plan is illustrated graphically at the end of this Executive Summary, and has the following major features:

Airside Facilities

Building upon the reconstruction of the Airport’s runway/taxiway system and apron expansion in recent years, along with on-going efforts to finalize designs for instrument approach procedures, Nephi Municipal Airport is well configured to accommodate forecasted demand. In addition, Nephi City’s desire to preserve the long-term expansion capability of the Airport (i.e., runway/taxiway extension and instrument approach upgrades) will ensure the overall operational capabilities of this important transportation facility. The specific airside planning recommendations for the Airport are presented in the following text.

Runway and Taxiway Improvements.

- 1) Design/publish Runway 17 GPS instrument approach procedure.
- 2) Design, engineer, & install Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR) to support Runway 17 GPS approach.
- 3) Design/publish Runway 35 GPS instrument approach procedure.

- 4) Design, engineer, & install Medium Intensity Approach Lighting System to support Runway 35 GPS approach.
- 5) Prepare environmental study for future 900-foot runway/taxiway extension.
- 6) Conduct Airport Airspace Analysis Survey for Runway 35 instrument approach revision.
- 7) Design, engineer, & extend runway and parallel taxiway 900 feet to the south.
- 8) Relocate Runway 35 MALS and Install RAILS to support Runway 35 GPS & RNP approach.
- 9) Design/publish revised Runway 35 GPS instrument approach procedure.
- 10) Design/publish new Runway 17 & 35 RNP instrument approach procedures.
- 11) Implement ongoing runway, taxiway, and apron pavement maintenance projects.

Property/Easement Acquisition or Release

The Airport Sponsor (i.e., Nephi City) presently owns or controls the property associated with the existing RPZs at each runway end. However, approximately 10.1 acres of property acquisition and approximately 22.9 acres of RPZ easement are recommended to control the balance of the future enlarged Runway 17 RPZ following the implementation of instrument approach upgrades.

Landside Facilities

Based upon input received from Nephi City staff and members of the Study Advisory Committee, as well as the projected aircraft storage improvements that were identified in the *Aviation Activity Demand Forecast* chapter, the following landside development improvements (i.e., aviation, aviation-related, and aviation support) have been identified.

Aviation Development

In accordance with the forecast based aircraft counts and facility requirement projections that were generated for this planning effort, it has been concluded that adequate future aviation-use development property is available on the east side of the airport to accommodate this projected aviation demand for the 20-year planning period of this study. It should also be noted that the undeveloped infill areas within the existing aviation development are nearly fully leased, and

future development of aircraft storage facilities at the Airport will be demand driven. Therefore, the number, size, and location of future hangars will vary depending on the demand for specific facilities, and the proposed development plan is flexible to accommodate a variety of user groups.

Aircraft storage facilities, ranging from additional tiedown apron, nested T-hangars, and individual executive hangars, to larger FBO/corporate hangars can be accommodated through long-term expansion of the existing east side general aviation development area. It should also be noted that the future development of aircraft storage facilities will also require the extension of access roadways and utilities (e.g., electricity, natural gas, water, sanitary sewer, etc.).

Aviation-Related Development

The siting requirements for aviation-related facilities can vary significantly, with some facilities requiring large development sites for initial construction and future expansion capability, while others require only small shops or small portions of larger facilities. Depending upon the specific operation, these facilities may, or may not, require direct airside access, but all must be provided convenient landside access and adequate vehicular parking for both customers and employees.

With the balance of the existing east side of the Airport being reserved for future aviation development, Nephi City does own approximately 63.7 acres that abuts existing airport property on the west side of the Airport, which extends southward from the proposed development site of the Utah National Guard Armory. This potential development site would be well suited for light industrial uses, and could be marketed by the City as potential *revenue producing properties*. In addition, the site is currently provided county road access from Meadow Lane, but would require roadway upgrades and the extension of utilities to serve the site.

Aviation Support Development

The support facilities at Nephi Municipal Airport, which require development recommendations, include the existing fuel storage facility, the storage tanks that support the BLM SEAT Firefighting Base, and the airport's new infrastructure development.

Fuel Storage Facility: To better accommodate long-term fuel storage and dispensing requirements, a future development site was identified north of the existing general aviation ramp area. The site can be provided with convenient vehicular access from Airport Road, as well as taxilane and apron expansion from the existing ramp area. Both Jet A and avgas fuel would be offered at the new storage site.

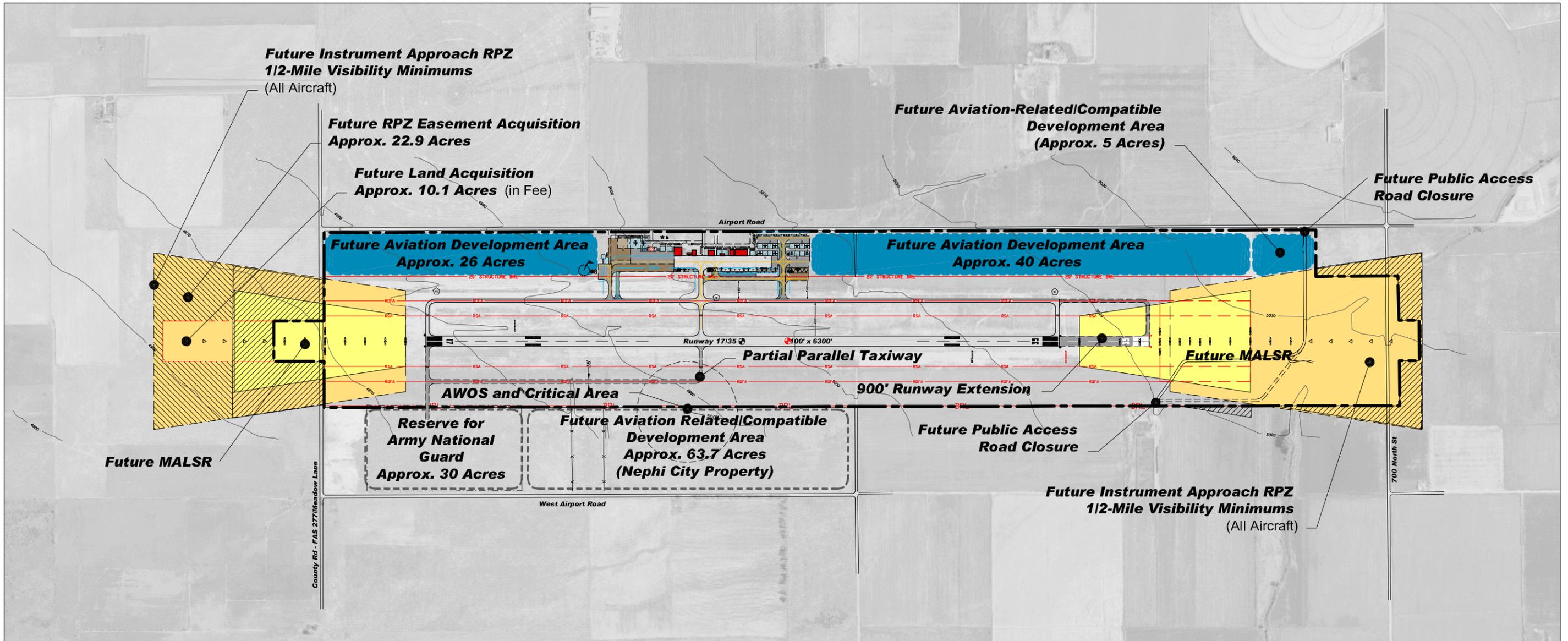
Single Engine Air Tanker (SEAT) Firefighting Base: A potential SEAT Base development area has been identified on the east side of the Airport, just south of the existing lighted wind cone and segmented circle. To accommodate their specified operational requirements, the proposed development site would be provided with vehicular access and auto parking from Airport Road, an office building, storage tank facilities, exclusive-use apron/taxilanes, and a connector taxiway that links to the Airport's parallel taxiway system, Taxiway "A".

Airport Infrastructure Development: The future development of aviation facilities within the east side of the Airport will require the extension of access roadways and utilities (e.g., electricity, water, sanitary sewer, etc.) to serve the expanded development areas within newly defined utility corridors. The most critical of these will be the extension of Nephi City water supply lines to the Airport, and the establishment of sanitary sewer connections to the individual airport tenants.

Summary

The Development Program for Nephi Municipal Airport calls for the expansion of the basic layout of facilities as they presently exist, with programmed improvements to maximize efficient and safe aircraft operational activity, along with providing adequate development area for future landside facilities. This program is a comprehensive proposal. It is intended to establish a strategy for funding airport improvements and maximizing the potential for receiving federal and state matching funds, while also establishing a financially prudent plan for funding at the local level. This programming effort is a critical component of the Master Plan Update for the FAA, the UDOT Division of Aeronautics, and the Airport Sponsor.

If aviation demands continue to indicate that improvements are needed, and, if the proposed improvements prove to be environmentally acceptable, the capital improvement financial implications discussed in the Master Plan Update are likely to be acceptable to the FAA, the State, and the Airport Sponsor. However, it must be recognized that this planning effort reflects only a programming analysis and does not represent a binding financial commitment on the part of the Airport Sponsor or the FAA.



- | | |
|------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
|  Existing Avigation Easement |  Future Avigation Easement |
|  Existing Property Line |  Future Runway Protection Zone |
|  Existing Fencing |  Existing Runway Protection Zone |

