



Division of Finance & Management

Office of Air, Rail & Transit

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Pierre, SD 57501

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TO: South Dakota Aeronautics Commission
FROM: Jack Dokken, Office of Aeronautics
DATE: May 23, 2024
SUBJECT: Airport Improvement Program (AIP) /Bi-Partisan Infrastructure Law (BIL)
 Grant Applications

Airport sponsors are requesting funding from the State Aeronautics Fund for the following AIP/BIL projects:

Aberdeen 3-46-0001-051-2024

BIL: Acquire friction measuring equipment

Federal Share	\$ 99,000.00
State Share	\$ 5,500.00
Local Share	\$ 5,500.00
Total	\$110,000.00

Hot Springs 3-46-0020-018-2024

AIP: Construct hangar taxiway extension and hangar approaches (non-AIP).

Federal Share	\$ 324,000.00
State Share	\$ 18,000.00
Local Share	\$ 112,437.00
Total	\$454,437.00

Milbank 3-46-0034-021-2024

AIP: Design runway 13 end turnaround reconstruction; Geotech; aquatic resource study.

Federal Share	\$ 90,000.00
State Share	\$ 5,000.00
Local Share	\$ 5,000.00
Total	\$100,000.00

Onida 3-46-0041-017-2024**BIL:** Design and construct AWOS-IIIP.

Federal Share	\$378,000.00
State Share	\$ 21,000.00
Local Share	\$ 21,000.00
Total	\$420,000.00

Sioux Falls 3-46-0050-064-2024**AIP:** Environmental, design and bidding for east cargo apron expansion

Federal Share	\$ 414,000.00
State Share	\$ 23,000.00
Local Share	\$ 23,000.00
Total	\$460,000.00

Tea FAA-ARP-AIP-G 001**AIP:** Supplemental discretionary. Reconstruction of hangar taxilane.

Federal Share	\$ 1,197,000.00
State Share	\$ 66,500.00
Local Share	\$ 66,500.00
Total	\$1,330,000.00

Wagner 3-46-0057-021-2024**AIP:** Engineering for AWOS-IIIP w/cultural and aquatic resource survey.

Federal Share	\$72,800.00
State Share	\$ 4,000.00
Local Share	\$ 4,000.00
Total	\$80,000.00

Wagner 3-46-0057-022-2024**BIL:** Construction of AWOS-IIIP.

Federal Share	\$252,000.00
State Share	\$ 14,000.00
Local Share	\$ 14,000.00
Total	\$280,000.00

Yankton 3-46-0062-039-2024**BIL:** Design and bidding reconstruction of PCC apron in front of GA terminal.

Federal Share	\$ 80,600.00
State Share	\$ 4,500.00
Local Share	\$ 14,900.00
Total	\$100,000.00

Project Narrative (Justification)

Runway Friction Testing Equipment

The Aberdeen Regional Airport, ABR, is a nonhub commercial service airport in Brown County, SD. The airport's primary runway is concrete Runway 13/31 which is 6,901 ft long and 100 ft wide. A crosswind asphalt runway, Runway 17/35 at 5,500 ft long and 100 ft wide is also available for aircraft using the airport. The airport has greater than 21,000 enplanements annually, with 66 based aircraft (7 Jets), greater than 40,000 annual operations, and 3 Fixed Based Operators.

Per FAA Order 5100.38D, Airport Improvement Plan Handbook, acquiring friction measuring equipment is an eligible project if justified with the following considerations:

- Only a self-contained device or a towed device is eligible. Airports must provide their own towing vehicles for towed devices.
 - ABR is not requesting a towing vehicle.
- The airport must be commercial service airport, hold a 14 CFR part 139 certificate, and have scheduled turbojet operations.
 - Accurate for the current situation at ABR.

The airport currently has old friction testing equipment that is need of replacement for accurate readings for up-to-date NOTAMs during winter weather snow removal operations. The current equipment is a Vericom RFM4000, was purchased in 2013 with local funds, and ABR is no longer able to obtain parts to repair the equipment if broken/damaged.

Hot Springs Municipal Airport, Hot Springs, South Dakota

Project Narrative / Justification

BIL Grant

1. Construct Hangar Taxilane Extension (383' x 25') and Hangar Approaches (Non-AIP)
 - a. A 10-unit T-hangar was constructed in the summer of 2023 as part of FAA grant 3-46-0020-015-2021.
 - b. There was insufficient funds at that time to construct a taxilane to the east of this hangar to service those hangar bays.
 - c. This taxilane extension will also service a future hangar lot that would be 130' by 50'. This hangar lot will provide room for future hangars to be constructed at the airport. There currently is no room available for such hangars.
 - d. This project will construct a taxilane that will be approximately 25' wide by 383' long.
 - e. Approaches to the new 10-unit T-hangar will also be constructed as part of this project, but those costs will be segregated as they are not AIP eligible.
 - f. This project will be funded with a BIL grant.
 - g. This project is shown on the current ALP.

Project Narrative (Justification)

Design of Runway 13 end turnaround reconstruction w/ geotechnical exploration, and aquatic resource survey.

The runway turnaround at the Milbank Municipal Airport (1D1) has exceeded the end of its useful life and is in need of reconstruction. The turnaround was originally constructed in 1984 and consists of 2 inches of asphalt and 8 inches of base course. The turnaround was overlaid with ±2.5 inches of new asphalt in 1998. The apron was included in the SDDOT Pavement Maintenance project in 2017 at which time crack sealing, patching and crack leveling was completed. The latest results from the 2021 Pavement Condition Index (PCI) surveys indicated a PCI value of 42 for the runway turnaround. According to FAA AC 150/5320-6G, pavement sections with a PCI value less than 55 are candidates for reconstruction. As can be seen in the table below, the PCI values of the turnaround has decreased by 17 points from 59 to 42 since 2012.

Table 3: Runway 13 End Turnaround PCI Ratings

Milbank Municipal Airport (1D1)										
Branch ID	Pavement		2012		2015		2018		2021	
	Age	Material	PCI	Condition	PCI	Condition	PCI	Condition	PCI	Condition
Runway Turnaround	1998	Asphalt	59	Fair	51	Poor	66	Fair	42	Poor

The existing pavement section for the runway turnaround is approximately 13 inches deep, making the pavement highly susceptible to the effects of frost in the severe SD winters. It is proposed that the turnaround will be reconstructed to a depth of 39" (65% of frost depth) and include underdrain to reduce the susceptibility to frost heaves and extend the life of the pavement. The existing asphalt and base course will be recycled and reused as subbase material for the new concrete pavement section.

Also included with the design process of the proposed project is a geotechnical exploration of the turnaround area. The geotechnical exploration will provide valuable information used in the pavement design for the turnaround. Soil borings will be taken in the area and the types of sub soils discovered will be analyzed to determine their strength and suitability for supporting pavements. Information from the exploration will be entered into the FAARFIELD pavement design calculator to complete the pavement design.

The field aquatic resource delineation will be conducted in accordance with the U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual (1987 Edition) and Regional Supplement to the Corps of Engineers Wetland Manual: Midwest Region.

Project Narrative (Justification)

BIL - Design and Construct AWOS-III Weather Station

The City of Onida would like to complete the construction of an Automated Weather Reporting System (AWOS III-P) at the Onida Municipal Airport. Installation of an AWOS III-P will provide pilots with detailed weather information needed to more effectively and more safely operate in and out of the airport. An AWOS III-P will provide pilots with the visibility, cloud ceiling, wind velocity and direction, as well as the type of precipitation if it is raining or snowing. The Onida Municipal Airport has an average of 105 operations/week at the airport according to the AIRNAV, updated June 2022. The airport is one of the busiest Ag spray bases in the state, with as many as seven spray planes operating from the airport at a given time. By constructing an onsite weather station, these ag spray pilots will have a better idea of the real time weather conditions at the airport, helping to increase the safety of their spraying operations.

This project proposes to design, acquire, install, and operate an AWOS III-P system to fulfill the need at this facility. The project will consist of grading and clearing, installing electrical equipment, fencing, localized drainage improvements, acquiring AWOS III-P equipment, installing a tower and foundations, computer equipment, software, and other appurtenances to complete the AWOS III-P system. An internet connection would also to be established in order for the National Weather Service (NWS) to connect with the National Airspace Data Interchange Network (NADIN) in order to relay weather information to pilots.

Project Narrative (Justification)
2024 FAA Grant Application
AIP #3-46-0050-064-2024
Sioux Falls Regional Airport

Objective:

East Cargo Apron Expansion – Design

Design feeder apron expansion (approx. 11,300 S.Y.) on the south end of the existing East Cargo Apron, design mainline apron parking area reconstruction (approx. 9,600 S.Y.) on the east side of the existing East Cargo Apron, and design mainline apron taxilane expansion (approx. 1,700 S.Y.) on the west side of the existing East Cargo Apron.

Benefits Anticipated:

East Cargo Apron Expansion

FSD is continuing to see cargo operations grow over time and has had space constraint issues on the East Cargo Apron for several years. Currently, UPS mainline aircraft park parallel to the taxilane centerline apron on the south side of the East Cargo Apron. When parked in this position, there is not proper Taxilane Object Free Area (TLOFA) clearances to allow for other aircraft to utilize the connector taxiways to access Taxiway B in this area. The area south of the existing East Cargo Apron is shown on the ALP as an expansion area. Expansion to the south is needed at this time to shift the feeder cargo operations to accommodate mainline parking that does not impede the flow of traffic on the East Cargo Apron as well as accommodate increased feeder parking. In conjunction with the expansion to the south, the project will also expand the apron to the west to allow for a taxilane shift and reconstruction/strengthening of pavements to the east to allow for mainline aircraft parking that doesn't impede the TLOFA of the East Cargo Apron taxilane. In addition to clearing TLOFAs on the apron, feeder aircraft parking capacity is a concern. Currently many feeder aircraft must park on the north side of the East General Aviation (GA) Apron due to limited capacity on the East Cargo Apron where they should be parking. This means ground vehicle operations must travel between the general aviation and East Cargo Apron, which leads to lost time and safety concerns within the air operations area. The East Cargo Apron expansion/reconfiguration is shown on the preferred development strategy for future development (6-10 years) in the 2016 Airport Layout Plan (ALP)/Master Plan (MP) and is also included in the current 2024 ALP/MP being developed.

Various additional project items include a City of Sioux Falls required BMP/detention pond due to the increase in impervious area, realignment of cargo access road to accommodate apron expansion, removal of an existing building in the footprint of the apron expansion, a deicing fluid collection system, and the relocation of the Runway 3 Localizer & National Weather Service (NWS) ASOS cables.

Approach:

East Cargo Apron Expansion

The project will be designed and advertised as a single bid package in the summer of 2024. At this time, construction is anticipated to begin in the fall of 2024 with the project completion in the summer of 2025. KLJ of Sioux Falls, SD will serve as the Sponsor's consultant to lead these efforts. Design is the only phase that will be included in this grant.

Project Narrative (Justification)

Design and Construction of Grading & Taxiway/Taxilane Construction – South Hangar Expansion Area Project, Phase I

Background

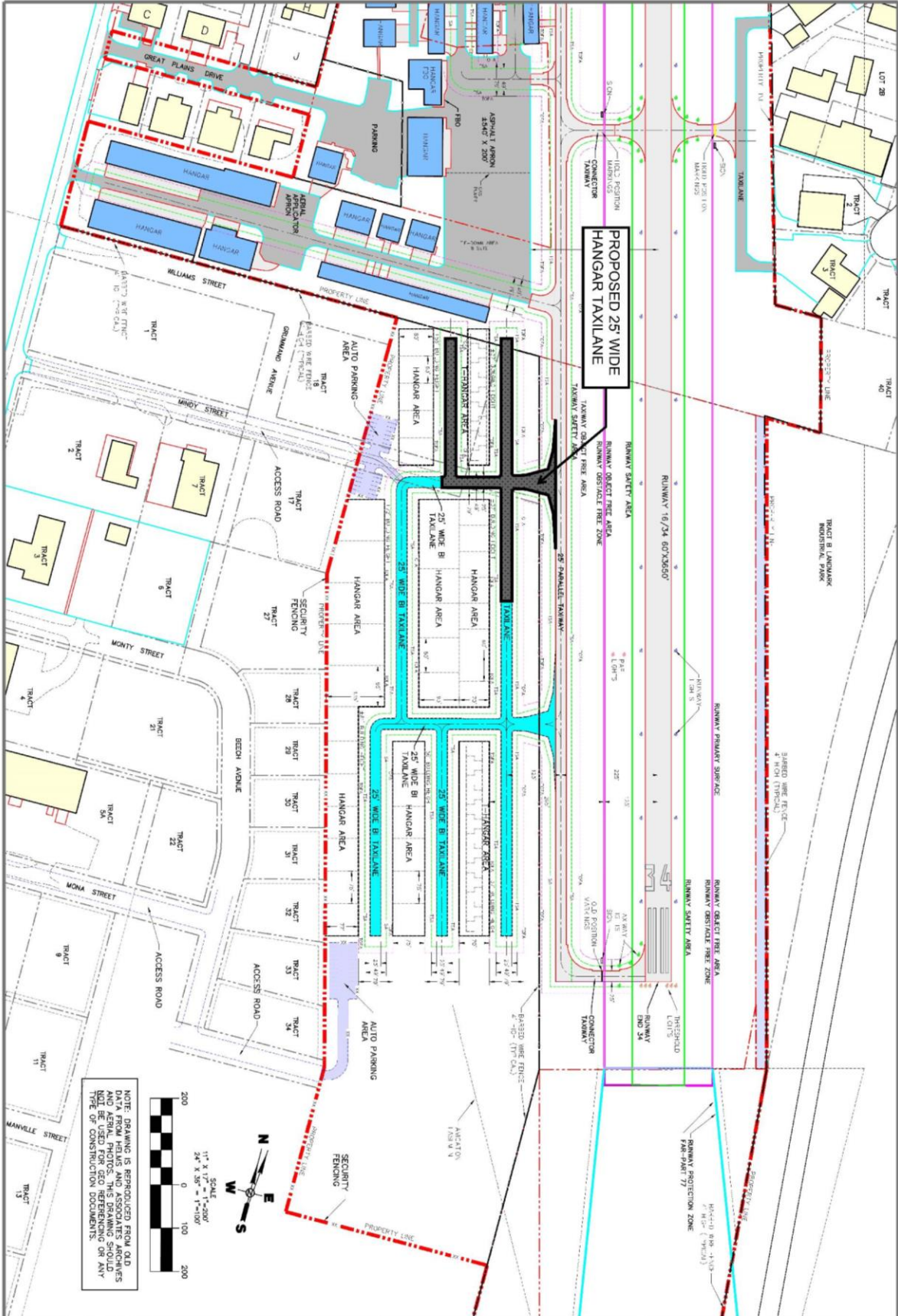
For years, the Marv Skie-Lincoln County Airport (Y14) was an active small GA airport, however in recent years it has had a significant gain in users and traffic. The current FBO had acted as the FBO and airport manager for years. However, the Sponsor has moved forward with hiring an airport manager that is a County employee. He is on the airfield on a regular basis and has made strides with the users by hosting user meetings and gaining regular input from them.

Currently, the airport is working toward maintaining their existing airside needs. This consists of a grant for the purchase of land, construction of the north half of their GA Apron and plans for a FY 2024 grant to complete the South Half of the Apron reconstruction project. The users have identified a need for additional hangar space. The County understands the need and has established a priority list of projects to accommodate those needs. However, due to the priority being on maintaining the infrastructure they have, and Federal funding constraints, they have not been able to complete a hangar taxilane expansion project to date. The new manager receives regular phone calls for locations to construct private hangars, as well as, rent t-hangar space. The proposed project will be the first phase of several for the development of this new property. The ±1,150 linear feet of taxilane would allow for the construction of a new t-hangar by the County, approximately 315 linear feet of hangar area for the private hangar construction of hangars up to 80 feet deep, and approximately 240 linear feet of hangar area for private hangar construction of hangars up to 70 feet deep. We anticipate that approximately 9 private hangars could be constructed after the completion of this project and the manager believes that they will fill those spots immediately.

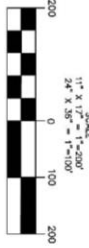
The airport has grown to a shocking level of 90 based aircraft and an average of 50 operations daily. The small airport is located near FSD and is a preferred relocation spot for General Aviation pilots as that airport has expanded. Y14 is a user friendly GA airport with an excellent FBO that has a variety of offers, as well as, a mechanic on the field.

It is proposed that the taxilanes will be constructed to an adequate depth (up to 65% of frost depth) and include underdrain to reduce the susceptibility to frost heaves and extend the life of the pavement. An ALP update was submitted and approved for this area under 2022-AGL-6857-NRA.

The County will eventually plan to continue the taxilane expansion in future phases. There will be additional taxilane provided for private hangar use, but also for the County to continue to construct T-Hangars.



NOTE: DRAWING IS REPRODUCED FROM OLD. THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION OR ANY OTHER PURPOSES. THIS DRAWING SHOULD NOT BE USED FOR GEO REFERENCING OR ANY TYPE OF CONSTRUCTION DOCUMENTS.



**ALP UPDATE
GENERAL AVIATION AREA**
MARY SKIE/GREAT PLAINS LINCOLN
COUNTY AIRPORT
TEA, SOUTH DAKOTA

Helm & Associates
CIVIL ENGINEERS & LAND SURVEYORS

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416	Production St N.	By: AEP 3/21/20
111	P.O. Box 111	Check Date: 3/21/20
57402	Aberdeen, S.D.	Scale: As Shown
605.226.1212	Phone: 605.226.1212	Project No: 19-001
605.226.3109	Fax: 605.226.3109	Sheet No: 1 of 1
bob@helmsengineering.com	Project Name: ALP Update - General Aviation Area	Client: MARY SKIE/GREAT PLAINS LINCOLN COUNTY AIRPORT
	Project Location: TEA, SOUTH DAKOTA	Project Description: ALP Update - General Aviation Area
	Project Status: Final	Project Date: 3/21/20

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Anticipated Project Schedule:

Supplementary Application Submission – May 2, 2024
Notification of Award – August 2, 2024
Scope Submittal to FAA/SDDOT – August 5, 2024
IFE Process Complete/Contract Approval – September 16, 2024
Environmental Approval – December 1, 2024
90% Plans/Specs/EDR Submittal – December 13, 2024
Project Bid Date – January 22, 2025
Final Application Submission – January 27, 2025
Grant Agreement Execution – February, 2025
Pre-Construction Conference/Construction Conference – February, 2025
Construction Start – May, 2025
Construction Completion – September, 2025
Closeout Documentation Submission – December, 2025

Notes:

- Environmental Reviews –
 - A Level III Survey with TCS was completed on the airport in 2020, therefore, all areas of potential historic/cultural significance have been identified. There are none within the project area.
 - A wetland delineation was completed in the project area in 2020. There is a wetland located on the south edge of the newly purchased property, but it will not be impacted with this project.
 - A CATEX is the anticipated environmental document and can be completed in a timely fashion early in design.
- A Construction Safety Phasing Plan (CSPP) will be completed early in design.
- The project is shown on the existing ALP Update and will not differ from what is already approved.

Anticipated Funding Plan:

March Skie – Lincoln County Airport
Tea, SD

Lincoln County has quickly moved forward with improvements to the airfield having a grant in every year since 2019. They will continue to move forward with capital improvements, but supplementary funding for this airfield will be instrumental in enabling that progress to continue. They have the Sponsor match budgeted and will have it available for the project.

The Table below provides the breakdown of the costs for the Project.

Brief Item Description	Construction Cost	Engr.	Admin. Cost	Total Cost	Federal Share	Non-Federal
					90%	10%
Taxiway/ Taxilane Project	\$1,064,835	\$297,500	\$17,665	\$1,330,000	\$1,197,000	\$133,000
Totals	\$1,064,835	\$297,500	\$17,665	\$1,330,000	\$1,197,000	\$133,000

The Table below provides the breakdown of the funding sources for the Project.

AIP Entitlements	BIL	Supplemental Discretionary	State Share (5.0%)	Sponsor Share (5.0%)	Total Estimated Cost
--	--	\$1,197,000	\$66,500	\$66,500	\$1,330,000

PART IV – Program Narrative

Prepare the program narrative statement in accordance with the following instructions for all new grant programs. Requests for supplemental assistance should be responsive to Item 5b only. Requests for continuation or refunding or other changes of an approved project should be responsive to Item 5c only.

1. OBJECTIVES AND NEED FOR THIS ASSISTANCE

Provide a short and concise description of the proposed improvement. Include a narrative on why this improvement is needed.

2. RESULTS OR BENEFITS EXPECTED

Identify results and benefits to be derived. For example, include a description of who will occupy the facility and show how the facility will be used. For land acquisition or development projects, explain how the project will benefit the public.

3. APPROACH

- a. Outline a plan of action pertaining to the scope and detail of how the Sponsor proposes to accomplish the work.
- b. Cite factors, which might accelerate or decelerate the work, and your reason for taking this approach as opposed to others. Describe any unusual features of the project such as construction approach, reductions in cost or time or extraordinary social and community involvements.
- c. Provide projections of project milestone dates. As a minimum, identify target dates for defining project costs (i.e. bid opening or completion of negotiations), anticipated issuance of notice-to-proceed and anticipated project completion date.
- d. Identify monitoring and oversight mechanisms the Sponsor proposes to implement.
- e. List key individuals and entities such as consultant, Sponsor personnel and contractor who will work on the project. Provide a short description of the nature of their effort or contribution.

4. GEOGRAPHIC LOCATION

Identify location of the project. This will typically be the name of the airport.

5. IF APPLICABLE, PROVIDE THE FOLLOWING INFORMATION:

- a. Describe the relationship between this project and other work planned, anticipated or underway under the Federal Assistance listed under Part II, Section A, Item 5.
- b. Explain the reason for all requests for supplemental assistance and justify the need for additional funding.
- c. If there have been significant changes in the project objectives, location, approach or time delays, explain and justify. For other requests for changes or amendments, explain the reason for the change(s). If the scope, budget, or objectives have changed or an extension of time is necessary, explain the circumstances and justify.

6. SPONSOR'S REPRESENTATIVE

Identify contact information of Sponsor's representative.

Project Narrative (Justification)
2024 FAA BIL-AIG Grant Application
AIP #3-46-0062-039-2024
Chan Gurney Municipal Airport

Project Item

Reconstruct Apron.

What is the Project?

The project is for design and bidding services for concrete pavement reconstruction at Chan Gurney Municipal Airport. This includes a Preliminary Eligibility Sketch and Eligibility Report, and the Apron Use Plan and final eligibility will be determined in the design phase of this project. See attached sketch and report.

Why is the Project Needed Now?

The project is needed now due to the concrete pavement being in either poor or failed condition. According to the last Pavement Condition Index (PCI) Study conducted in 2021, the majority of the apron in front of the terminal was rated 47, which is in the Poor rating range of 41-55. A portion of apron to the north was rated 20, which is in the Failed rating range of 0-40. This poor and failed rating of concrete presents safety concerns and FOD issues requiring extra maintenance and inspection by airport staff, and this reconstruction project would remedy the concrete pavement deterioration.

Is the Project Phased?

Yes. This first phase is to complete the design of the plans and specifications for the apron reconstruction. The second phase is to construct the project, scheduled for 2025.

Total AIP Funds Expended this Fiscal Year?

\$80,600 – FAA AIP funds

\$4,500 – State funds

\$14,900 – Local funds

Additional AIP Funds Needed to Complete Project?

No additional funds will be needed in 2024 for the Design Phase of this project. In 2025, there is an estimated shortfall in federal funding to construct the project. The City is requesting state apportionment funding for the shortfall.