

Department of Transportation Division of Secretariat Office of Air, Rail & Transit

700 East Broadway Avenue Pierre, South Dakota 57501-2586

OFFICE: 605/773-3574 FAX: 605/773-2804

TO: South Dakota Aeronautics Commission

FROM: Jack Dokken, Program Manager

Office of Air, Rail, and Transit

DATE: September 19, 2017

SUBJECT: Financial Assistance Agreements

The Office of Aeronautics is requesting funding from the State Aeronautics Fund for the AIP projects below.

Martin 3-46-0030-013-2017

Airport Master Plan study, airport layout plan, exhibit A and Aeronautical Study.

Federal Share \$ 285,000.00 State Share \$ 15,833.33 Local Share \$ 15,833.34

Total \$ 316,666.67

The Department recommends approval of state assistance in the amount of \$15,833.33.

Pierre 3-46-0044-038-2017

Passenger boarding bridge procurement and GA taxiway design to include provisions for aeronautical agricultural operations, access road, utility corridors and drainage issues.

Federal Share \$ 800,000.00 State Share \$ 44,444.44 Local Share \$ 44,444.45

Total \$ 888,888.89

The Department recommends approval of state assistance in the amount of \$44,444.44.

Redfield 3-46-0049-011-2017

Construction of runway 17/35, including bidding, construction administration, engineering, wetland mitigation, easement acquisition, tribal & archeological monitoring, Precision Approach Path Indicator flight check.

Federal Share	\$ 3,528,000.00
State Share	\$ 196,000.00
Local Share	\$ 196,000.00

Total \$ 3,920,000.00

The Department recommends approval of state assistance in the amount of \$196,000.00.

Rosebud 3-46-0082-010-2017

Acquisition of snow removal equipment.

Federal Share	\$ 2	205,200.00
State Share	\$	11,400.00
Local Share	\$	11,400.00

Total \$ 228,000.00

The Department recommends approval of state assistance in the amount of \$11,400.00.

Sisseton 3-46-0051-013-2017

Design and bidding for runway 16/34 reconstruction (3,400' X 60'), turnarounds, connector taxiway, and lighting upgrades.

Federal Share	\$ 153,000.00
State Share	\$ 8,500.00
Local Share	\$ 8,500.00

Total \$ 170,000.00

The Department recommends approval of state assistance in the amount of \$8,500.00.

Watertown 3-46-0058-032-2017

Construction of hangar taxilane expansion, including design, bidding, construction admin, engineering.

Federal Share \$ 805,500.00 State Share \$ 44,750.00 Local Share \$ 44,750.00

Total \$895,000.00

The Department recommends approval of state assistance in the amount of \$44,750.00.

2017 SD Airport AIP Grants - September 2017

Airport	Project Description	Federal Funds (90%)	State Funds (5%)	Total Funds
Aberdeen - 37	SRE equipment purchase; WHA & WHMP	\$1,215,000	\$67,500	\$1,350,000
Britton 12	Taxilane construction; hangar (obstruction) relocation;	\$463,500	\$25,750	\$515,000
Brookings 29			\$45,000	\$900,000
Canton 07	Construct wildlife fence; mitigate wetland	\$402,901	\$22,383	\$447,669
Chamberlain 09	Focused master plan	\$220,590	\$12,255	\$245,100
Clark County 11			\$8,750	\$175,000
Custer County 13	Design/construct GA apron; material testing	\$575,000	\$31,944	\$638,889
Eagle Butte 09	Design and enviro documentation for GA apron rehab and expansion	\$72,000	\$4,000	\$80,000
Eureka - 08	Construct hangar taxilane	\$323,100	\$17,950	\$359,000
Faulkton 10	EA for runway 13-31, wetland delineation, WHSV, cultural survey	\$112,500	\$6,250	\$125,000
Gregory 14	Construct apron expansion phase II 100x200';	\$297,000	\$16,500	\$330,000
Huron-35	runway 12/30 shoulder rehab; twy A replacement; remove obst; grade rpz	\$3,521,012	\$195,612	\$3,912,236
Lemmon 13	Design runway and taxiway rehabilitation	\$155,121	\$8,618	\$172,357
Madison-14	Wetland mitigation (29.44 credits)	\$299,700	\$16,650	\$333,000
Madison-15	design south parallel twy (7200 SY) w/MITL	\$68,400	\$3,800	\$76,000
Martin - 12	Construct wildlife fence	\$165,000	\$9,167	\$183,333
Martin - 13	Airport master plan; layout plan, exhibit A and aeronautical Study	\$285,000	\$15,833	\$316,667
Mitchell-27 SRE acquisition to replace 1982 Oshkosh		\$119,700	\$6,650	\$133,000
	Design runway 12/30, MIRL, PAPI and connector reconstruction; turnarounds;			
Mobridge 11	RSA grading; SRE equipment; land acq for RPZs	\$337,509	\$18,751	\$375,011
Parkston 12	Land acq for RPZ and design for hangar area expansion (11 acres)	\$144,000	\$8,000	\$160,000
Pierre 38	Jet bridge; design GA txwy including ag ops, utility corrodor & drainage	\$800,000	\$44,444	\$888,889
Rapid City 49	Reconst GA apron phase 2; SRE purchase; engineering for deicing apron and containment	\$1,615,000	\$89,722	\$1,794,444
Redfield 11	Land acquisition (90 acres) for RPZ; construction of 17/35	\$3,528,000	\$196,000	\$3,920,000
Rosebud 10	SRE tractor acquisition; design/construct AWOS-3	\$205,200	\$11,400	\$228,000
SDDOT - 23	PM, including rejuv and Marking at GA Airports	\$820,800	\$45,600	\$912,000
Sioux Falls 51	partial recon rwy 3/21 ends; twy B1 & B3 recon w/rwy 3-21 OFA	\$8,227,472	\$457,081	\$9,141,637
Sisseton 13	Design runway 16/34 reconstruction, turnarounds, connector, geotech	\$153,000	\$8,500	\$170,000
Spearfish-BH 23	EA for crosswind 5-23 and land purchase; SRE truck/plow	\$125,000	\$6,944	\$138,889
Vermillion 12	Construct apron expansion and PAPI replacement	\$559,800	\$31,100	\$622,000
Watertown - 31	ADA access improvements at Terminal building; compliance document	\$99,000	\$5,500	\$110,000
Watertown - 32	Hangar taxilane expansion	\$805,500	\$44,750	\$895,000
Webster - 09	Construct runway, apron, connector taxiway; land acquisition	\$1,998,000	\$111,000	\$2,220,000
Winner 15	Construct lower apron expansion (305 x 50');	\$436,500	\$24,250	\$485,000
	Totals	\$29,117,806	\$1,617,655	\$32,353,122

Total Federal funds State Funds (5%) Total Funds

Part IV - Program Narrative

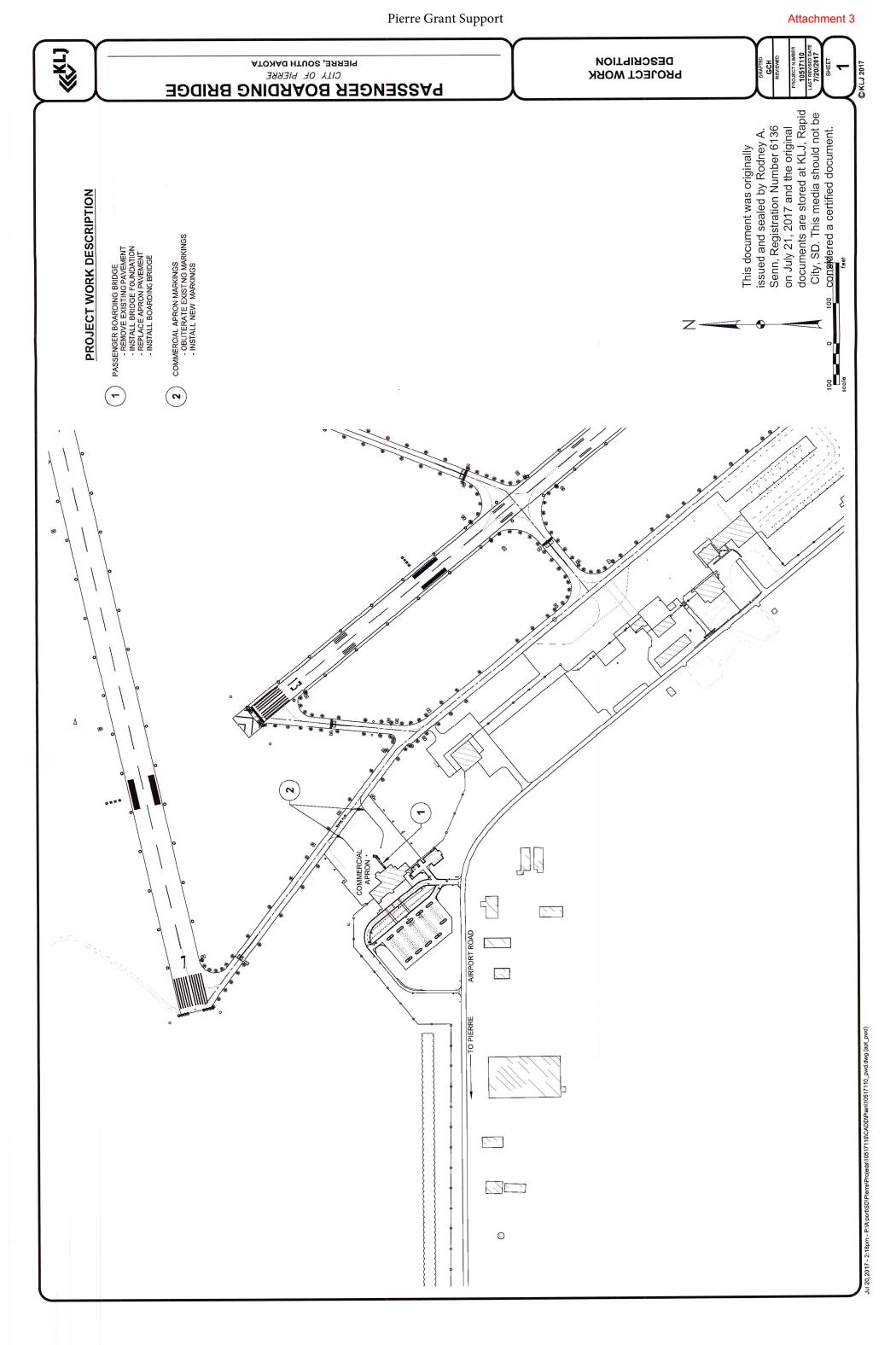
(Suggested Format)

PROJECT:
AIRPORT:
1. Objective:
2. Benefits Anticipated:
3. Approach: (See approved Scope of Work in Final Application)
4. Geographic Location:
5. If Applicable, Provide Additional Information:
6. Sponsor's Representative: (include address & telephone number)

PIERRE REGIONAL AIRPORT 038-2017 GRANT COST SUMMARY

Construction - Passenger Boarding Bridge	
Sharpe Enterprises, Inc\$	716,500.00
Consulting Services - Passenger Boarding Bridge	
Design and Bidding Services\$ Construction Administration and Observation	45,223.24
Services\$	38,893.67
Consulting Services - General Aviation Taxiway	
Design and Bidding Services\$	73,832.53
Material Testing Services Preliminary Investigations\$	6,290.00
Administration	
Administration, Legal, Advertising, etc	8,149.45
TOTAL \$	888,888.89

TABULATION OF BIDS PIERRE REGIONAL AIRPORT AIP 3-46-044-037-2017 PASSENGER BOARDING BRIDGE		Sharpe Enterprises, Inc. John Bean Technologies Corporation Fort Pierre, SD Ogden, UT	QUANTITY UNIT PRICE TOTAL SUM UNIT PRICE TOTAL SUM UNIT PRICE TOTAL SUM		1 L.S. \$650,000.00 \$650,000.00 \$648,500.00 \$648,500.00 \$739,055.00 \$739,055.00	SCHEDULE 1 \$650,000.00 \$648,500.00 \$739,055.00	QUANTITY UNIT UNIT PRICE TOTAL SUM UNIT PRICE TOTAL SUM UNIT PRICE TOTAL SUM		1 L.S. \$50,000.00 \$50,000.00 \$68,000.00 \$68,000.00 \$74,767.00 \$74,767.00	ALTERNATE NO. 1 \$50,000.00 \$68,000.00 \$74,767.00		SCHEDULE 1 \$650,000.00 \$648,500.00 \$739,055.00	SCHEDULE 1 AND ADD ALTERNATE NO. 1 \$700,000.00 \$716,500.00 \$813,822.00	gefldu
PIE					1 L.S.	Ē 1	Ш		1 L.S.	TE NO. 1		LE 1	ALTERNATE NO. 1	geladu
	Bid Letting: August 17, 2016 Comp. No. 10517110 Checked by: Rod Senn		UNIT DESCRIPTION QL	Schedule 1 General Construction Passenger Boarding Bridge	Passenger Boarding Bridge	TOTAL BID SCHEDULE 1	UNIT DESCRIPTION Q	Add Alternate No. 1 400 Hz Ground Power Unit	400 Hz Ground Power Unit	TOTAL BID ADD ALTERNATE NO.	SUMMARY OF BIDS	TOTAL BID SCHEDULE 1	TOTAL BID SCHEDULE 1 AND ADD	TRUE TABULATION OF BIDS
·			ITEM		-		ITEM		1					



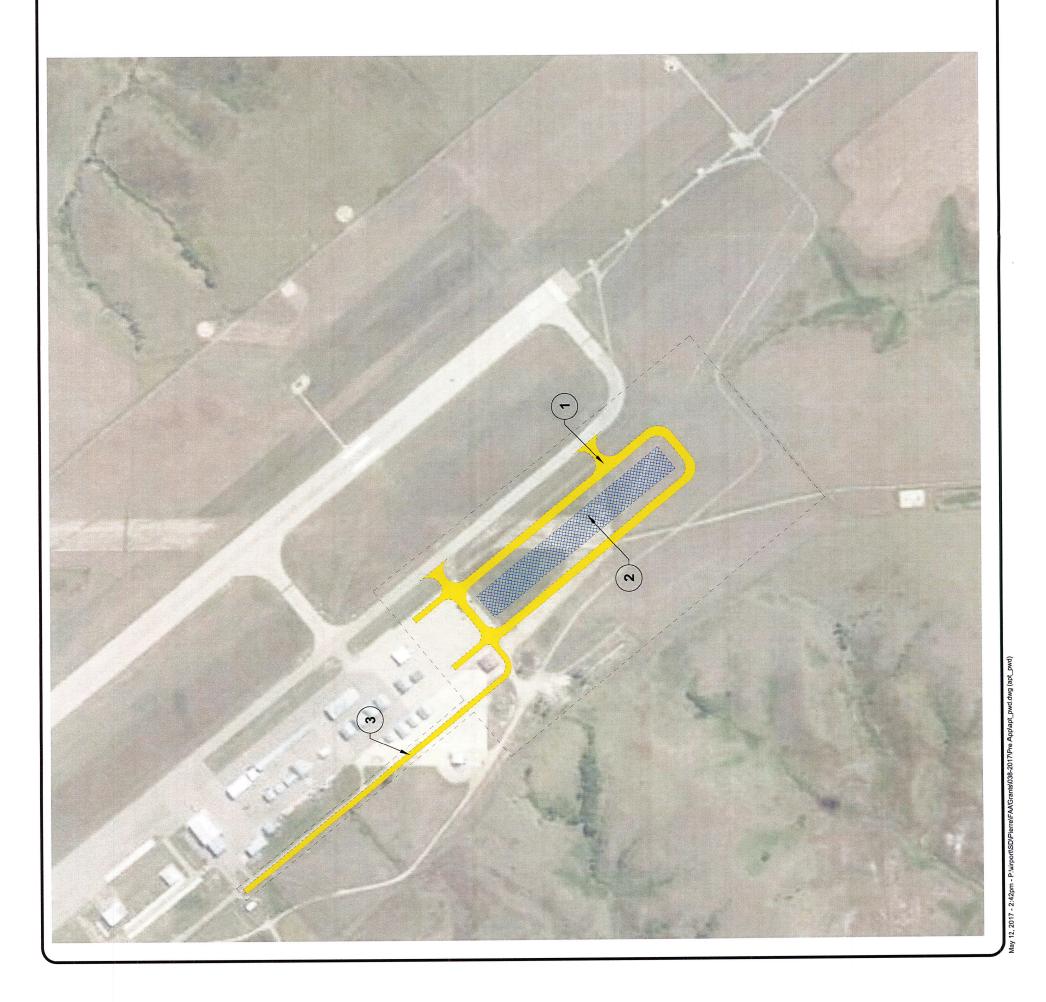
THE NOTION OF THE WOOD

CONSTRUCTION OF TAXIWAYS (APPROXIMATELY 13,150 S.Y.)

PROJECT WORK DESCRIPTION

GRADE AREA FOR FUTURE HANGAR EXPANSION

(3) CONSTRUCT ACCESS ROAD (APPROXIMATELY 4,235 S.Y.) (7)



Pierre Grant Support

PRECONSTRUCTION PHOTOS



Terminal Building from Commercial Service Apron



Electrical Provisions for Boarding Bridge

Pierre Grant Support

PRECONSTRUCTION PHOTOS



Entrance Door for Boarding Bridge

Land Appraisals, Land Acquisition Assistance, Land Acquisition for RPZ Protection (35 RPZ)

The property has been purchased for the 17/35 construction project, however the City of Redfield was still in negotiations with the land owner of the 35 RPZ across the township road. The City of Redfield and the land owner have come to an agreement on the Runway 35 RPZ and an easement has been purchased.

<u>Bidding & Negotiations, Construction Administration, Construction Engineering, Wetland Mitigation, Tribal</u> Monitoring, Archeologist Monitoring, PAPI Flight Check, and Construction of the Runway 17/35 Project

The purpose of the proposed federal action analyzed in the EA is that the Redfield Municipal Airport currently does not meet FAA recommendations and standards for wind coverage and runway length. The purpose also is that wildlife attractants such as wetlands exist on the airport very near runways, taxiways and other areas of aircraft operations.

The need is to enhance airport safety by taking actions that will:

- Meet FAA Standards and protect the people and property on the ground.
- Eliminate the possibility of future incompatible land uses in the RPZs and Departure Surfaces to the end of the RPZ limits.
- Reduce and/or eliminate wildlife attractants from airport property.

The Redfield Municipal Airport purchased land for the construction of a new primary runway 17/35. The runway will be 75' wide and 3,500' long, allowing the Redfield Municipal Airport to meet FAA recommendations and standards for wind coverage and runway length. The Redfield Municipal Airport will also construct a 10' wildlife fence and fill wetlands.

The current project will consist of the construction of Runway 17/35 (35' x 3,500'), Runway 35 turnaround, Runway 17 partial parallel (in lieu of turnaround), connector taxiway, a new electrical control system with MIRLs, PAPIs, and wetland mitigation for the wetlands impacted as part of this project. Also included is the tribal and archeological monitoring of the project.

Future projects will consist of the filling/modification of remaining wetlands on airport property and construction of a 10' wildlife fence to complete the preferred alternative chosen and approved in the EA.

Project Sketch/Description

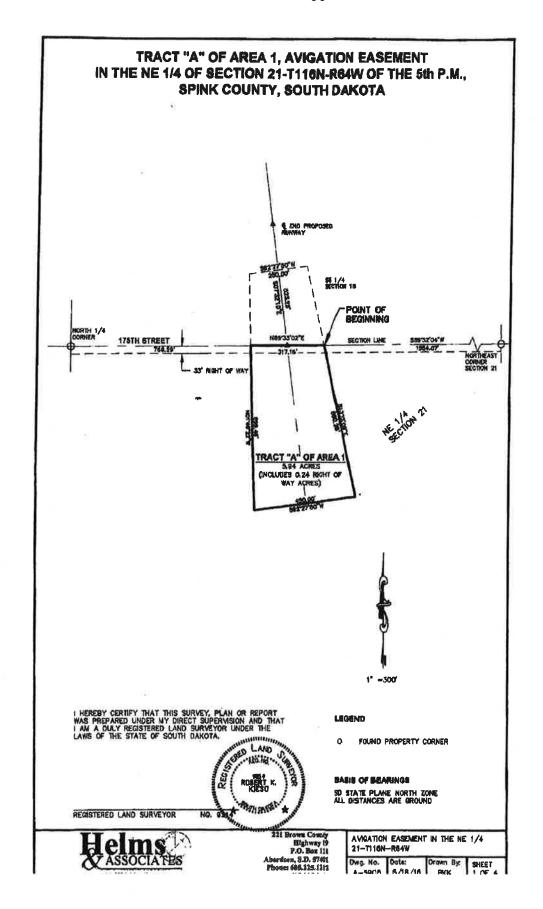
Redfield Municipal Airport Redfield, SD

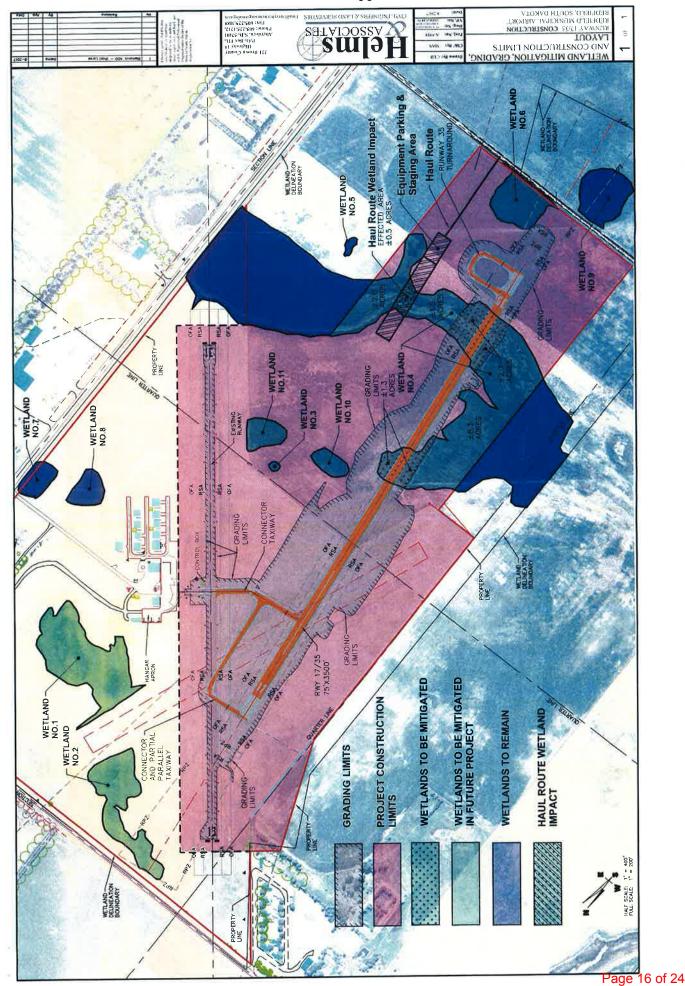


Project Description:

Land Appraisals, Land Acquisition Assistance, Land Acquisition for RPZ Protection (35 RPZ Easement)

Bidding & Negotiations, Construction Administration, Construction Engineering, Wetland Mitigation, Tribal Monitoring,
Archeologist Monitoring, PAPI Flight Check, and Construction of the Runway 17/35 Project





SRE TRACTOR WITH ATTACHMENTS

The current loader at the airport was purchased for the Mission Airport (3,200' x 60') before the Rosebud Sioux Tribal Airport (4,800' x 75') was constructed. With the newer airport with significantly more pavement, the loader is too small to efficiently move snow in rosebud. It is a 2005 Case Loader. By having larger SRE at the airport the airport manager or other personnel can go to the airport and start removing snow immediately and more efficiently. In addition, by getting a blade and blower attachment along with the bucket, the tractor will clean the runway better since it can blow the plow furrow away.

The following are the justifications of the variables used in completing the "Snow Removal Equipment Calculations" spreadsheet.

- The Rosebud Sioux Tribe is a General Aviation facility.
- The Average Annual Snowfall was determined to be 38.0 inches from the historical average monthly data from 1951 to 2016 from the High Plains Regional Climate Center.
- The Number of Operations was obtained from the most recent Airport Master Record. The total operations for 12 months ending 4/29/2014 was 1,200.
- The size of Runways, Taxiways, and Apron are: the current 16/34 Runway is 4,801 ft x 75 ft, the connector taxiway is 330 ft x 35 ft, and the existing apron is 200 ft x 330 ft. For simplicity reasons, half of the apron is considered critical to aircraft operations. The access road is also very critical as the primary use of the airport is for air ambulances and the hospital must be able to transport patients to the airport.

The Airport will use the old equipment as a trade-in on the bid.

SNOW REMOVAL EQUIPMENT ACQUISTION ROSEBUD SIOUX TRIBAL AIRPORT ROSEBUD, SOUTH DAKOTA AIP #3-46-0082-010-2017 BID TABULATION 8/30/2017

				RDO Equ	uipment	Sheehan Mack			
Base Bi	id			Rapid C	ity, SD	Rapid City, SD			
Item #	Item Description	Quantity	Unit	Unit Price	Total Price	Unit Price	Total Price		
1	Articulated, 4-Wheel Drive Loader	1	Each	\$162,896.00	\$162,896.00	\$138,793.00	\$138,793.00		
	Total Base Bid				\$162,896.00		\$138,793.00		
Alterna	ate Bid #1								
Item #	Item Description	Quantity	Unit	Unit Price	Total Price	Unit Price	Total Price		
1	Snow Blower	1	Each	\$85,650.00	\$85,650.00	\$120,853.00	\$120,853.00		
	Total Alternate Bid #1				\$85,650.00		\$120,853.00		
Alterna	ate Bid #2								
Item#	Item Description	Quantity	Unit	Unit Price	Total Price	Unit Price	Total Price		
1	6-Way Dozer	1	Each	\$10,980.00	\$10,980.00	\$20,431.00	\$20,431.00		
	Total Alternate Bid #2				\$10,980.00		\$20,431.00		
Alterna	ate Bid #3								
Item#	Item Description	Quantity	Unit	Unit Price	Total Price	Unit Price	Total Price		
1	Heavy Loader Forks	1	Each	\$3,000.00	\$3,000.00	\$4,632.00	\$4,632.00		
	Total Alternate Bid #2				\$3,000.00		\$4,632.00		
Trade-l	In (Deduct)			_					
Item#	Item Description	Quantity	Unit	Unit Price	Total Price	Unit Price	Total Price		
1	2005 Case IH Maxxum 120	1	Each	\$41,500.00	\$41,500.00	\$24,000.00	\$24,000.00		
	Total Trade-In (Deduct)				\$41,500.00		\$24,000.00		

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I HEREBY CERTIFY THAT THE FOREGOING IS AN ACCURATE REPRESENTATION AND TABULATION OF ALL BIDS RECEIVED AND THAT THE MATHEMATICS HAVE BEEN CHECKED AND IS TO THE BEST OF MY KNOWLEDGE CORRECT:

PROJECT ENGINEER:	K	rode EL	an 1	DATE:	8-30-2017

<u>Design for Runway 16/34 (±3,400' x 60'), Turnarounds, and Connector Taxiway (±125' x 35') Reconstruction and Lighting Upgrades</u>

The asphalt on Runway 16/34 and turnarounds are near the end of its useful life. The runway and turnarounds were constructed in 1999 of 8" of P-208, 6" of millings, and 2" of P-401. There are longitudinal and transverse cracks, depressions, alligator cracking and block cracks on the pavement. The airport has repaired numerous cracks on several occasions through the SDDOT's pavement maintenance projects, most recently as part of the 2007, 2010 and 2013 projects. However, the runway is beginning to show areas of unrepair. Due to the state of the runway, it is proposed to do a thorough pavement evaluation and the design of the reconstruction of the runway, connector taxiway (to outside of the RSA), and turnarounds. The rehabilitation will add underdrain to the runway to help alleviate moisture and heaving issues that may have occurred in the past and prevent them from happening in the future.

	2010 PCI	2012 PCI	2015 PCI
Runway	70	66	49
Turnarounds	83	55	27
Connector Taxiway	87	63	72

The lights and PAPIs were constructed in 2003 and will be 16 years old by 2019 (the planned reconstruction year). The City hasn't had any catastrophic maintenance issues, but have had several minor maintenance issues over the years. If we don't replace them with the reconstruction project, it would likely be a project in the near future. Including the electrical replacements would be beneficial for the City for a potential cost savings and only impacting the runway once instead of twice with separate projects. As with most of our reconstruction projects, the runway profile will likely be adjusted slightly. This will result in adjustments to the existing lights that are 16 years old. Also, if the lights and PAPIs are not replaced with this project, it will be necessary to replace them within the next few years following the project. Therefore, the runway will be required to be shut down for an extended period of time for two summers very close together.

Project Cost Breakdown

Sisseton Municipal Airport Sisseton, SD

Design and Bidding & Negotiations for Runway 16/34, Turnaround, and Connector Taxiway Reconstruction with Lighting Upgrades

Brief Item Description	Engr./Land Incidental	Admin. Cost	Total Cost	Federal Share	Non- Federal
				90%	10%
Design	\$144,975		\$144,975	\$130,477.50	\$14,497.50
Bidding & Negotiations	\$7,629	-	\$7,629	\$6,866.10	\$762.90
Estimated Geotechnical Exploration	\$10,000		\$10,000	\$9,000	\$1,000
Estimated Independent Fee Review	\$3,000		\$3,000	\$2,700	\$300
Administration		\$4,396		\$3,956.40	\$439.60
Totals	\$165,604	\$4,396	\$170,000	\$153,000	\$17,000

Project Sketch/Description

Sisseton Municipal Airport Sisseton, SD



Project Description:

Design and Bidding & Negotiations for Runway 16/34 (±3,400' x 60'), Turnarounds, and Connector Taxiway (±125' x 35') Reconstruction with Lighting Upgrades

<u>Design, Bidding & Negotiations, Construction Administration, Construction</u> Engineering, and Construction of the Hangar Taxilane Expansion Project

There is currently no location for new (large) hangar construction at ATY. Currently, the airport has two commercial users wanting to construct large facilities. A new hangar taxilane will allow for new larger hangar construction. The new location shown on the submitted ALP update, will be able to accommodate the Future FBO Maintenance Center and Future FBO Training Center.

The Future FBO Maintenance Center is planned for maintenance of large aircraft requiring 50' taxilane. The remaining taxilane will be 35' wide to accommodate typical Taxilane Design Group 2 traffic.

Additionally, there are only two hangar locations available at the present on the airport for new hangars. They are only able to accommodate hangar up to 75' x 75'.

Project Sketch/Description

Watertown Regional Airport Watertown, SD



Project Description:

Design, Bidding & Negotiations, Construction Administration, Construction Engineering, and Construction of the Hangar Taxilane Expansion Project

