



Division of Finance & Management

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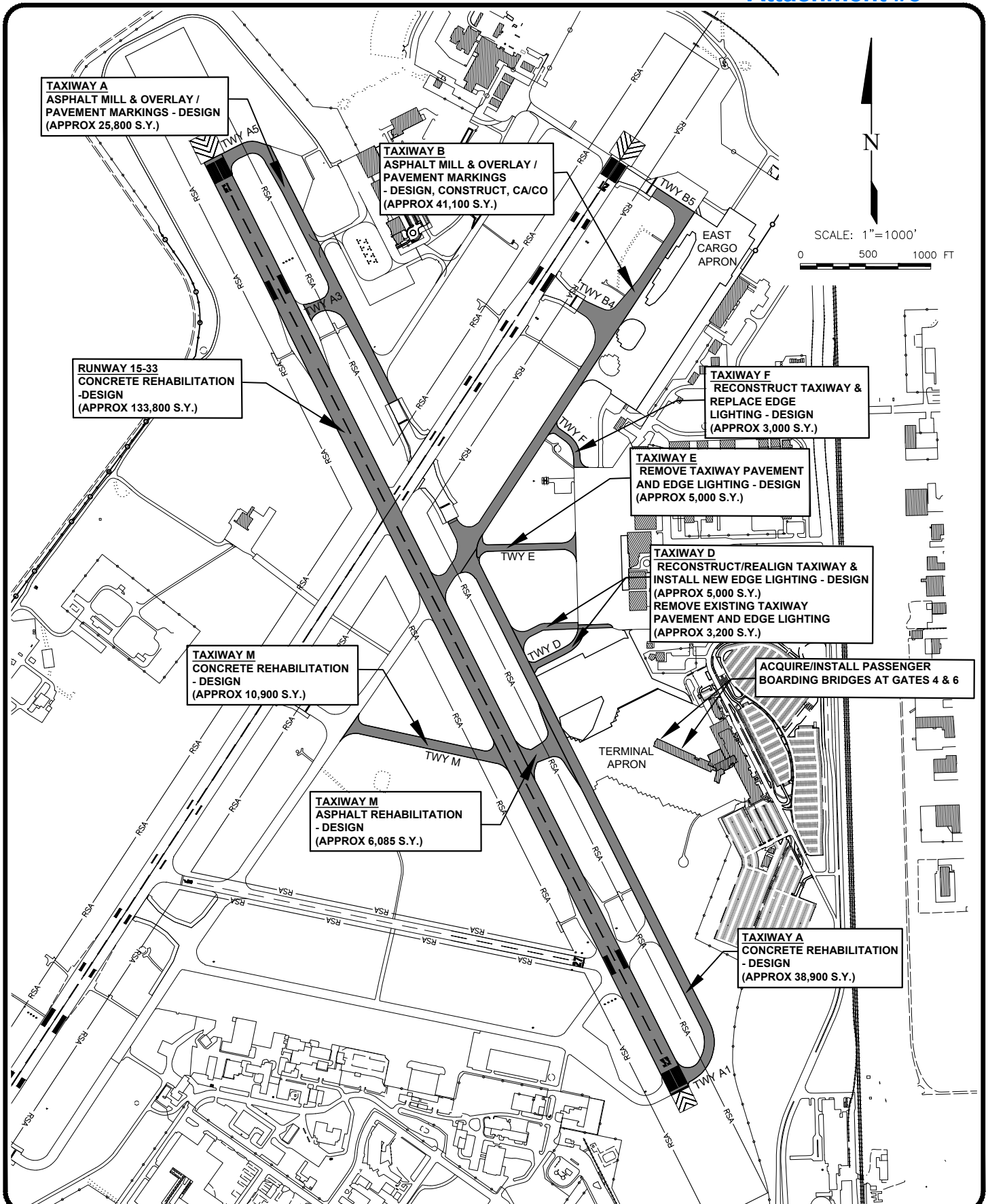
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**TO:** South Dakota Aeronautics Commission  
**FROM:** Jack Dokken, Office of Aeronautics  
**DATE:** September 16, 2021  
**SUBJECT:** Consideration of Airport Improvement 2021 Program (AIP) Project

**Sioux Falls 3-46-0050-057-2021**

- **Design of Runway:** 15-33(8,000'X150', Concrete) to Taxiway B5 and Reconstruction
- **Design of Taxiway:** A (6,400'X75', Concrete), A1 (300'x75', Concrete), A3 (250'x75' Asphalt), A5 (275'x75', Asphalt) and Rehabilitation, D (750'x50', Asphalt) Reconstruction and Realignment, F (400'x500' Asphalt) with Reconstruction and M (1,490'x75', Concrete) with Rehabilitation.
- **Construction of Taxiway:** B (3,400x75', Concrete), B4 (300'x75', Concrete) and B5 (340'x75', Concrete) with Rehabilitation
- **Acquire and Install:** Two Passenger Boarding Bridges for Gates 4 and 6.
- **Removal of Taxiway:** Airport Hot Spot "E"

Federal Share	\$ 3,772,348.00
State Share	\$
Local Share	\$
Total	\$ 3,772,348.00



## 2021 GRANT APPLICATION EXHIBIT

SIoux FALLS REGIONAL AIRPORT, SIoux FALLS, SOUTH DAKOTA  
Rehabilitate Taxiway B, Taxiway M, Taxiway A, and Runway 15-33,  
Realign/Reconstruct Taxiway D, Remove Taxiway E and D, Reconstruct Taxiway F  
Acquire/Install Passenger Boarding Bridges at Gates 4 & 6

DRAFTED  
BCB  
REVIEWED  
MDW  
PROJECT NUMBER  
SKETCH  
ISSUE DATE  
05/01/21



**Project Narrative (Justification)**  
**2021 FAA Grant Initiation**  
**3-46-0050-057-2021**  
**Sioux Falls Regional Airport**

**Objective:**

**Taxiway B from Runway 15-33 to Taxiway B5 Pavement Rehabilitation** - four-inch asphalt mill and overlay of approx. 41,100 SY of asphalt taxiway pavement including new pavement markings (Design, Construction, CA/CO)

**Runway 15-33, Taxiways A, A1, A3, A5 & M Pavement Rehab**— concrete runway pavement rehabilitation and joint sealing (133,800 SY), concrete taxiway pavement rehabilitation and joint sealing (49,800 SY), and asphalt taxiway mill and overlay (31,900 SY) including new pavement markings (Design Phase only)

**Realign/Reconstruct Taxiway D, Remove Taxiway E, Reconstruct Taxiway F** (Design Phase only)

**Acquire/Install 2 Jet Bridges (Terminal Gates 4 and 6)**

**Benefits Anticipated:**

**Taxiway B from Runway 15-33 to Taxiway B5** – The 2018 PCIs for the asphalt taxiway generally ranged from 63 to 70 (Fair). A mill and overlay will eliminate the continual FOD issues the airport has been having for several years and provide a safer and more reliable parallel taxiway to the primary runway.

**Runway 15-33, Taxiways A, A1, A3, A5 & M Pavement Rehab** – 1700' of concrete pavement at each approach end of Runway 15-33 concrete pavement is 18 years old and 11 years old for the 5600' runway interior with no comprehensive pavement rehab completed to date beyond small asphalt patching by Airport Maintenance. The 18-year-old portion had a 2018 PCI of 68 and 76. The 11-year-old pavement had a 2018 PCI of 91. Partial panel replacement at cracked, faulted or deteriorated slabs will minimize the rapidly increasing FOD issues. Joint resealing will prolong the life of the pavement by keeping moisture out of the joints.

Taxiway A south of Taxiway B is 20-30-year-old concrete pavement and has 2018 PCIs ranging from 36 (very poor) to 76. Partial panel replacement at cracked, faulted or deteriorated slabs will minimize the rapidly increasing FOD issues. Joint resealing will prolong the life of the pavement by keeping moisture out of the joints.

Taxiway M from Taxiway B to Runway 15-33 is concrete taxiway pavement that was constructed 11 years ago and has not had any pavement rehabilitation to date. The pavement will be 13 years old at the time of the project. Partial panel replacement at cracked, faulted or deteriorated slabs will minimize FOD issues that are just starting to develop. Joint resealing will prolong the life of the pavement by keeping moisture out of the joints.

Taxiway A north of Runway 3-21, A3, A5 and M between Runway 15-33 and Taxiway A are asphalt taxiway pavements that have not had any pavement rehabilitation for at least 11 years (it will be 13 years at the time of project). A mill and overlay will eliminate the continual FOD issues the airport has been having for several years and provide a safer and more reliable taxiways.

**Realign/Reconstruct Taxiway D, Remove Taxiway E, Reconstruct Taxiway F** – Taxiway D is shown on the ALP to be shifted north to accommodate the ultimate buildout for the deicing apron.

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Taxiway E intersects with Taxiways A and B to create a five-way intersection, which has been identified as a “Hot Spot” safety issue by the FAA. To remedy the hot spot, the ALP shows removal of the taxiway. The E GA Apron will still have two entrance taxiways after the removal of Taxiway E.

Taxiway F had a 2018 PCI of 68 (fair) and is increasingly causing FOD concerns. Additionally, timing is good to upgrade the taxiway prior to removal of Taxiway E as it will see increased traffic. Realignment of the taxiway to the south will be studied as part of the design to determine if necessary to accommodate the ALP shown future cargo apron expansion.

**Acquire/Install 2 Jet Bridges (Gates 4 and 6)**

FSD currently has seven gates and seven jet bridges. Five jet bridges are owned by the airport and one each owned by Delta and United Airlines. The five airport owned jet bridges are common-use and serve all five airlines depending on their flight schedules.

The two airline owned jet bridges are over 40 years old and poorly maintained by mechanics from out of state. It is not uncommon for one or both of these jet bridges to be out of service for months at a time waiting for a mechanic or parts (if they can be found) to get the jet bridge operational. The situation then shuts down the use of these gates causing operational conflicts for the remaining common-use airport jet bridges. Neither United nor Delta are interested in replacing these old jet bridges nor renovating them. The Airport would like to purchase two new jet bridges and transition these gates to common use to improve operational efficiency and allow for future growth.

**Approach:**

**Taxiway B from Runway 15-33 to Taxiway B5 Pavement Rehabilitation** - The project would be designed and advertised as a single bid package to be constructed in the summer of 2021. KLJ of Sioux Falls, SD will serve as the Sponsor's consultant to lead these efforts.

**Runway 15-33, Taxiways A, A1, A3, A5 & M Pavement Rehab** - The project would be designed and advertised as a single bid package in 2021 to be constructed in the summer of 2022. KLJ of Sioux Falls, SD will serve as the Sponsor's consultant to lead these efforts. Construction shall be under a separate grant.

**Realign/Reconstruct Taxiway D, Remove Taxiway E, Reconstruct Taxiway F** - The project would be designed and advertised as a single bid package in 2021 to be constructed in the summer of 2022. KLJ of Sioux Falls, SD will serve as the Sponsor's consultant to lead these efforts. Construction shall be under a separate grant.

**Acquire/Install 2 Jet Bridges (Gates 4 and 6)** - The project specifications and bidding document package would be completed as per federal requirements and publicly advertised in 2021. KLJ of Sioux Falls, SD will serve as the Sponsor's consultant to lead these efforts.