

Project Overview

BX Civil & Construction was the prime contractor on the Sioux Falls Regional Airport Deicing/RON Apron Expansion, a project spanning two years starting August 1, 2019 to substantial completion on September 4, 2020. The 9.7-million-dollar contract included a plethora of unique challenges for project leadership.

- Project Phases
 - 7 distinct phases over 2 years.
 - Phases 3, 4 and 7 having start and completion dates in late 2019.
 - Expanded cargo apron.
 - Removal and replacement of pavement markings.
 - Phases 1A, 1B, 2, 5 and 6 with scheduled completion dates in 2020.
 - Reconstruct terminal apron.
 - Deicing and RON (Remain Over Night) apron.
 - Remove and replace customs box on south terminal.
 - All phases met completion deadlines.
- Work Overview
 - BX and our team of excellent subcontractors worked tirelessly to:
 - Install/construct a new deicing system.
 - Make modifications to existing FAA electrical/communication access holes.
 - Install storm sewer.
 - Complete an immense concrete apron expansion consisting of 45,000 square yards.
 - This was one of the largest projects the Sioux Falls Airport has had in many years.

Community Impact

The addition of the deicing apron provides increased flexibility and simplified logistics for airport personnel. The added area provides a safe place for planes to receive deicing treatments prior to take off without tying up valuable space which can delay incoming and outgoing flights. In warmer months, the added space makes it easier for airline staff to position aircraft for use and service without interfering with departures and arrivals.

On average the Sioux Falls Regional Airport services approximately:

- 1.1 million airline passengers
- 61 million pounds of freight
- 14.6 million pounds of mail

These improvements allow the Sioux Falls Regional Airport to better serve their customers as well as provide a ready foundation on which to continue their growth.

Challenges

This project challenged and equally rewarded our team leaders.

- Tight Timeframes
 - Phase 1A and 1B combined had 75 Calendar days.
 - Phases 5 & 6 had a 40 Calendar Day count combined.
 - Both were completed on time, while simultaneously working on Phase 2.
 - Phases 3 & 4 were limited to 54 Calendar Days: August 19, 2019-November 2, 2019.
 - All phases were completed on time.
- Unprecedented Times – COVID-19
 - CDC Safety Precautions were implemented.
 - Began 2020 season with 40% of our expected workforce due to travel restrictions and employee fears.
 - Completed phase 1A and phase 1B on time (75 days) despite early obstacles.
 - Began self-performed work on April 28, 2020. Completed 6 days ahead of the June 12, 2020 deadline.
 - Required constant shifting of crews from other projects because of staff shortages due to COVID-19.
 - Staffing levels remained at 40% of expectations until June, while BX Human Resources worked to ensure everyone came back to work safely following CDC guidelines and quarantine periods.

Innovation

- Stringless Paving
 - Increased productivity saved 4,855 labor hours.
 - Reduced risk of rework.
 - All concrete met stringent strength and smoothness standards set by FAA.
 - Accelerated schedule and constructability.
- Stringless Trimming
 - Increased productivity.
 - Accelerated paving schedule.
 - Ensured the depth of concrete met FAA Specifications.

Excellence in Project Management

- Communication
 - Continuous on-site Project Management and communication with subcontractors.
 - Project Management worked tirelessly to ensure all subcontractors adhered to schedule.
 - Weekly progress meetings with project team and owners.
 - Schedule updated and sent out weekly.
 - Allowed for quick problem solving.
- Establishing Relationships
 - BX established great relationships with our team of subcontractors and the Project Engineer. Ensuring open lines of communication and expedited problem solving to keep the project on schedule.
 - Key Partners
 - Project Owners (SF Regional Airport)
 - KLJ Engineering
 - Soukup Construction
 - SFC Civil Constructors (A Journey Group Company)
 - Sioux Falls Electric
 - National Sealant
 - Splitrock Landscaping
 - Traffic Solutions
 - Concrete Materials (Ready mix Supplier)
- Sequencing of Operations
 - 2019 work was sequenced so SFC Civil and Soukup Construction would complete operations and be ready for concrete paving to begin in 2020.
 - These project partners went above and beyond to complete operations prior to Christmas 2019.
 - Intense paving sequencing in 2020.
 - Sequenced paving for efficiency and maximum productivity.
 - Paving every day of the week to meet deadlines.
 - Maintained route for airport maintenance vehicles and fuel trucks.
 - Taxiway Alpha was shut down for duration of phase 1.
 - Although not part of the original construction plans, due to low airline traffic volumes, the project team collaborated to re-route all airport vehicles through the closed taxiway Alpha to ensure safe and efficient constructability of the new service road and phase 1A & 1B.

Safety

Be Safe is one of our core values and something we strive for daily. In keeping with our values, we created and filled a new Safety Manager position to advance our existing safety program. The implementation of this position has pushed our safety program farther than we hoped and helped make our safety values an integrated part of our company culture.

On the Project

- Our Safety Manager made regular visits to all our job sites providing:
 - Toolbox talks
 - Q&A sessions
 - PPE distribution
 - Water to maintain hydration
- The Safety Manager worked to build positive relationships and open lines of communications with our Supervisors and Field Crews, focusing on relationship centered safety.

Culture of Care initiative

- Company committed to the pledge in April.
- Rolled out to all employees and field staff in May, including:
 - Personal site visits with all crews and discussions lead by company President, Kari Karst.
 - Culture of Care Toolbox Talks to all crews.
 - Implemented Culture of Care education with all Supervisory and Management Staff.

With an ethnically diverse staff we are passionate about providing education and resources to improve inter-cultural relationships and understanding whenever possible.

AGC Inclusion

As dedicated AGC members, the AGC is part of every job we do; all BX equipment proudly displays the AGC logo.

While the pandemic did not allow us to participate in some of the regular youth construction safety programming, we were able to actively participate in the Construction Career Academy and the SD Roads 2 Jobs programs. Both programs focusing on increasing awareness of construction careers and employment opportunities. The future of our workforce depends on our ability to draw new talent to our field, by partnering with the AGC in these programs we are ensuring the continued growth to meet our industry needs.