

BTV TAXIWAY 'G'

On December 12, 2020, the Burlington International Airport (BTV) opened a 9,000 ft long Taxiway that parallels the entire length of BTV's runway. BTV worked with Stantec Consulting Services to design Taxiway Golf. It has been in design, planning and construction for over 10 years and completed in four phases of construction. The project includes layout, grading, pavement design, line striping, signage, utilities, lighting, drainage, stormwater treatment, blast deflectors, retaining walls, detailed phasing, erosion/sediment control and aircraft navigation aid equipment relocations.

A taxiway is used for an airplane to safely maneuver the airfield to access the runway for takeoff or access the gates at the terminal after landing. Having a parallel taxiway provides more flexibility for pilots and an increase in efficiency for flights arriving and departing from Vermont's largest commercial airport.

A few of the major components of the project are discussed briefly below:

- **Construction Phasing** - Working on an active airfield requires very detailed phasing to ensure construction does not impact airport operations so flights can continue safely without major interruptions. Stantec worked with the FAA, BTV, Air Traffic Control and airlines to come up with a detailed plan that is known as a Construction Safety and Phasing Plan (CSPP). This plan dictates the areas where a contractor can work, access locations, duration, required safety measures and aircraft detours. While there were four major phases of construction on this project, there was as many as 40 discrete phases that were carefully designed.

- **Stormwater Treatment** – With the vast amount of pavement associated with this project, stormwater runoff had to be considered to the full extent of the State's treatment requirements including designing a system that will detain the 100-year design storm. This project uses an innovative underground infiltration solution known as StormTrap. Stantec designed two systems. The larger of the two systems is the length of a football field and sized to infiltrate 1.1 Million Gallons of Stormwater runoff. The smaller system is 75' by 48' and sized to infiltrate the entire 100-year storm event.



- **Taxiway Layout and Design**– The geometry for the parallel taxiway, seven perpendicular taxiways and the crosswind runway intersection had to be carefully considered for the design aircraft at BTV. The design group considered the future use of larger aircraft at BTV including those within design group IV such as a Boeing 757, Boeing 767 or Airbus A-300. After designing per FAA standards, turning movement models were generated for the design aircraft to ensure the proposed project could be safely navigated by pilots.