



HARSH WINTERS PRESENT DURABILITY CHALLENGES

As a northern Canadian province, Saskatchewan experiences temperature extremes throughout the course of any given year. In addition, the province has a great deal of water, with roughly 10% of its area either a river or one of almost 100,000 lakes!

Saskatchewan's proximity to the Arctic Circle yields exceptionally frigid winters. An exposure combination of year-round wind, sun, and water exposure means that all exterior structural materials must remain durable.

Recently, a potable water pumping station located on a reservoir within the City of Regina, Saskatchewan, needed to replace a stairway that was originally constructed out of carbon steel. With concerns about carbon steel's short life span, overall performance, and installation costs, the operator wanted to consider an alternative to lower life cycle costs.

The pumping station's location and aggressive slope presented challenges to support the welding and lifting of any metallic option, making FRP an ideal choice. ICON Construction worked with the City of Regina's engineers to design and fabricate a composite pultruded option, which could endure many years of temperature swings and environmental changes without corrosion or maintenance.

Outfitting this stairway are an assortment of Made in the USA pultruded products. The structural supporting members are comprised of EXTREN® structural channels and angles. The stair treads utilized DURAGRID® I-6000 1-1/2" with a medium grit coating for excellent slip resistance. For ascending and descending support, both SAFRAIL™ square handrail and ADA-compliant round grab rail were complemented with toe plates.

Regarding installation, within three days, the stairway was fabricated and installed on location for pumping station access. The installers and customer were both pleased with the functionality and brevity of construction of this overall project, which is expected to provide decades of useful service. ●

TECHNICAL DATA

Product:	Pumping Station Stairway
Process:	Pultrusion
Materials & Sizes:	EXTREN® Structural Shapes: - channels and angles DURAGRID® pultruded grating: - I-6000 1-1/2" with medium grit epoxy SAFRAIL™ square handrail with round grab rail
For:	ICON Construction
User:	Potable Water Pumping Station in Regina, Saskatchewan, Canada



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