



AN ALTERNATIVE TECHNOLOGY for erosion control

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Since 1984, Cable Concrete® installations have resolved environmental erosion challenges globally with more than 3,000 unique and challenging projects, protecting an area of land loss in excess of 1.5 million square metres. With well-established long-term operations in the east, in 2014 IECS expanded its manufacturing of this product line into Western Canada with strategically located facilities in Saskatchewan and Alberta, from which it can better serve the WCW market.

Cable Concrete® is an Articulating Concrete Block (ACB) system connected by cables allowing each individual block to be flexible and conform to the terrain of the ground. This interconnected block system is available in four different thicknesses to provide the specific stability required for each individual project. They can be applied effectively to prevent erosion on drainage channels, flood control dykes, water storage ponds and wastewater lagoons.

Since the 2013 flooding season, these ACB products have provided successful installations and post flood recovery works throughout Alberta. In particular, this technology was incorporated in the reconstruction of the Cougar Creek Channel after the 2013 flooding events that devastated Alberta. The ACB system was designed to line the banks and to protect the channel from further erosion in future flood events. It was extensively engineered to conform to the specific design dimensions of the new channel and the hydraulic characteristics of the Cougar Creek watershed.

An ACB system was also used to protect portions of the Highwood River in the MD of Foothills in Southern Alberta. CC70 Cable Concrete® was chosen to protect an overflow spillway on a section of the Highwood River. The spillway was designed to allow overflow water to safely drain from the Highwood River during peak flooding season or at time of moderate to severe rain events, while protecting the underlying soil from further erosion.

In Saskatchewan, ACB was chosen to reline the City of Saskatoon's Decant Cell #2 at their Biosolids Sewage Lagoon Facility. Heavy vehicle access is required for regular maintenance

within the facility. Compared to some other erosion control methods, ACB facilitates quick and easy installation, ensuring contract completion within tight timelines. The overall durability of the system, and the stainless steel cables gave added confidence to the longevity of the system.

The Parks, Culture, and Sports Department of the Government of Saskatchewan implemented this system to provide erosion solutions at Good Spirit Lake Provincial Park. These areas were consistently subjected to heavy erosion from wind caused wave action along the beachfront. CCG2 is a tied concrete block erosion control mat and it provided erosion control measures while allowing the area to be accessible by foot and vehicle traffic. CCG2 was installed with nonwoven geotextile underlay, stainless steel clamps, and backfilled with native beach sand.

In Manitoba, the Department of Infrastructure & Transportation chose CC45 Cable Concrete® for an erosion protection project on Twin Creek Road located in the Rural Municipality of Ritchot near the Seine River Diversion at Provincial Road 200. The decision to use this product was based on a need for greater protection from overtopping caused by frequent spring road flooding. By tying into a concrete road surface, this system offers superior erosion control measure. It was installed with a TRM underlay, stainless steel clamps and backfilled with topsoil to be seeded.

Complete engineering analysis with flume testing has been conducted by the engineering faculties at the University of Windsor, University of Colorado and University of Minnesota. Cable Concrete® is manufactured to specifications meeting federal, provincial MTO and state D.O.T. requirements. It is one of the few ACB systems in the industry that has been proven, tested, and conforms to all the industry ASTM standards, and the HEC 23 and TEK-11 design guidelines for ABC systems.

ACB systems can remediate existing environmental erosion issues and prevent future damage. They can be of great benefit to engineers, planners, communities, municipalities, conservation districts, water authorities and contractors, to protect the environment including physical, human, livestock and wild life assets.

